VOL. 77 NO. 11

What top management expects from statistical quality control . . 63

This year's A.A.T.C.C. convention 90

textile bulletin

NOVEMBER • 1951

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JACOBS

"VERYBEST"
RUBBERWELD
LUG STRAPS

Made entirely of rubberized cotton fabric
More uniform than any other lug strap!

- **UNIFORMITY** provides unvarying pick action
- **HIGH QUALITY ARMY DUCK** construction gives extra strength
- **NO PERMANENT STRETCH** plug or heel reduces adjustments
- **MOLDED AS ONE PIECE** entirely, including plug
- **NO RIVETS** or parts to work loose
- **EXTRA-DURABLE** — resists oils — not affected by humidity

Samples available

JACOBS

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Northern Division
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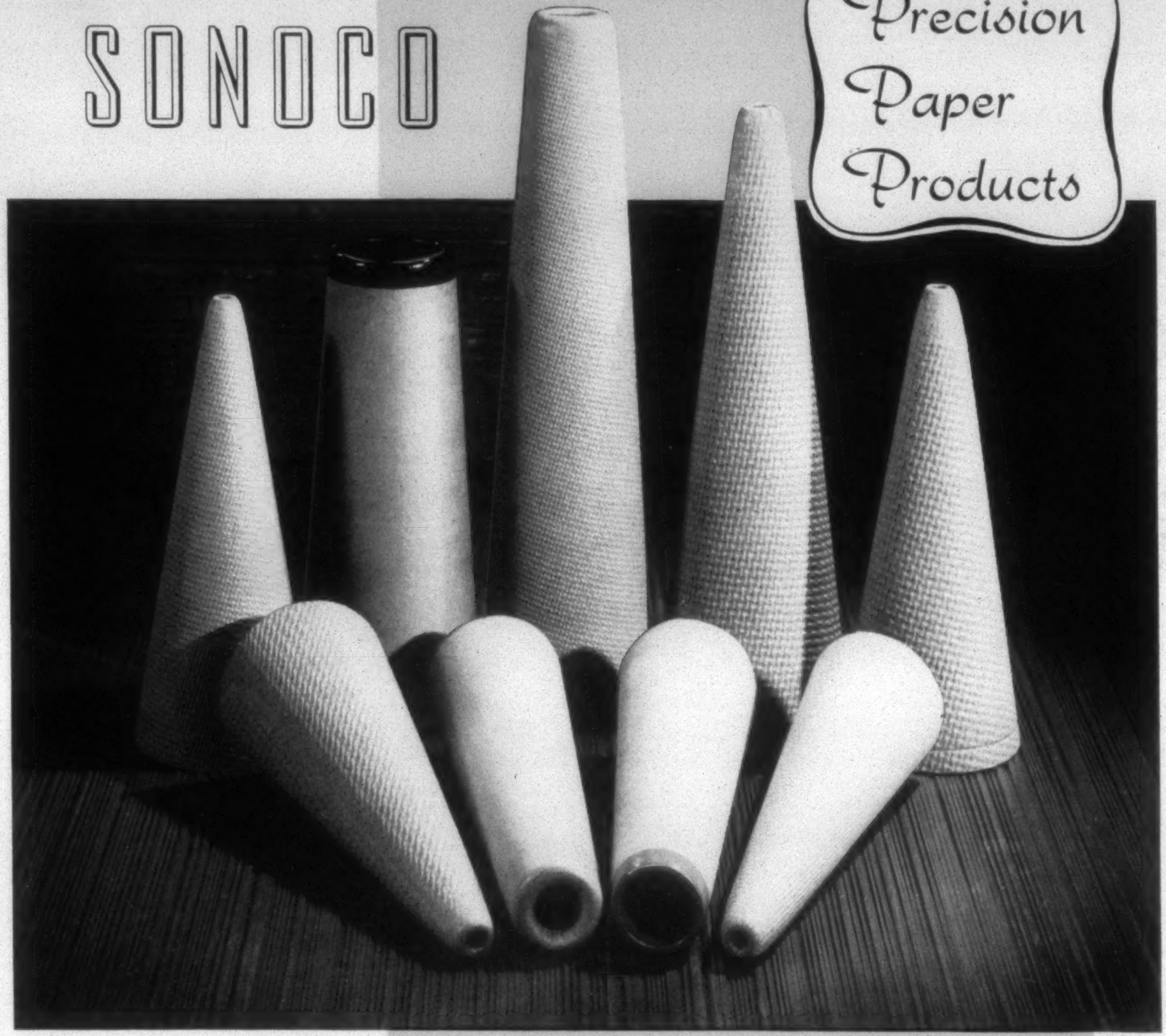
CHARLOTTE, NORTH CAROLINA

SERVING THE TEXTILE INDUSTRY SINCE 1899

SONOCO

Precision
Paper
Products



A cone to fit the yarn – !

If it can be wound on a cone—

If it can be delivered from a cone—

SONOCO will find the best way. For over 50 years SONOCO has been "research experts" to the textile industry on yarn packaging problems.

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SERVES THE WORLD
PAPER CARRIERS
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DEPENDABLE SOURCE OF SUPPLY

A DRAPER TEMPLE ROLL-

for every weave!

There is a Draper temple roll for every weave—from the sheerest synthetics to the coarsest cottons.

Ever since 1816, when Ira Draper invented the first revolving loom temple, the Draper name has been synonymous with temple development.

Do you require a rubber roll for synthetic goods? A pin roll for various cottons? A ring type for worsteds? Or a combination roll where pins can grip the selvage and rubber the cloth? There is a Draper temple roll to meet your requirements. If you are having trouble, take advantage of our years of experience and consult with us.

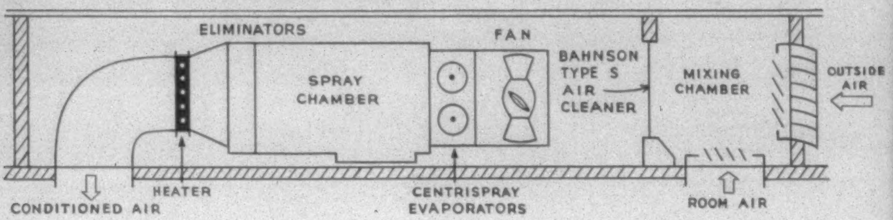
Buy the Best. Buy proven Draper temple rolls.

"Retaining leadership through research."

DRAPER CORPORATION

ATLANTA, GA. HOPEDALE, MASS. SPARTANBURG, S. C.

TEXTILE AIR CONDITIONING



Bahnson Centrispray Air Washer installed in monitor, conditions this Warping and Spooling Room.

Centrispray AIR WASHER

A new Bahnson development designed to improve textile operations.

In the Centrispray Air Washer, Bahnson Centrifugal Evaporators replace spray nozzles. The result is closer control with less water, less weight, and less maintenance. Compact Centrispray units are easy to install, require less space. Cooling by evaporation or refrigeration.

Humidity is controlled directly by the humidistat. Moisture is added in direct proportion to the room requirements.

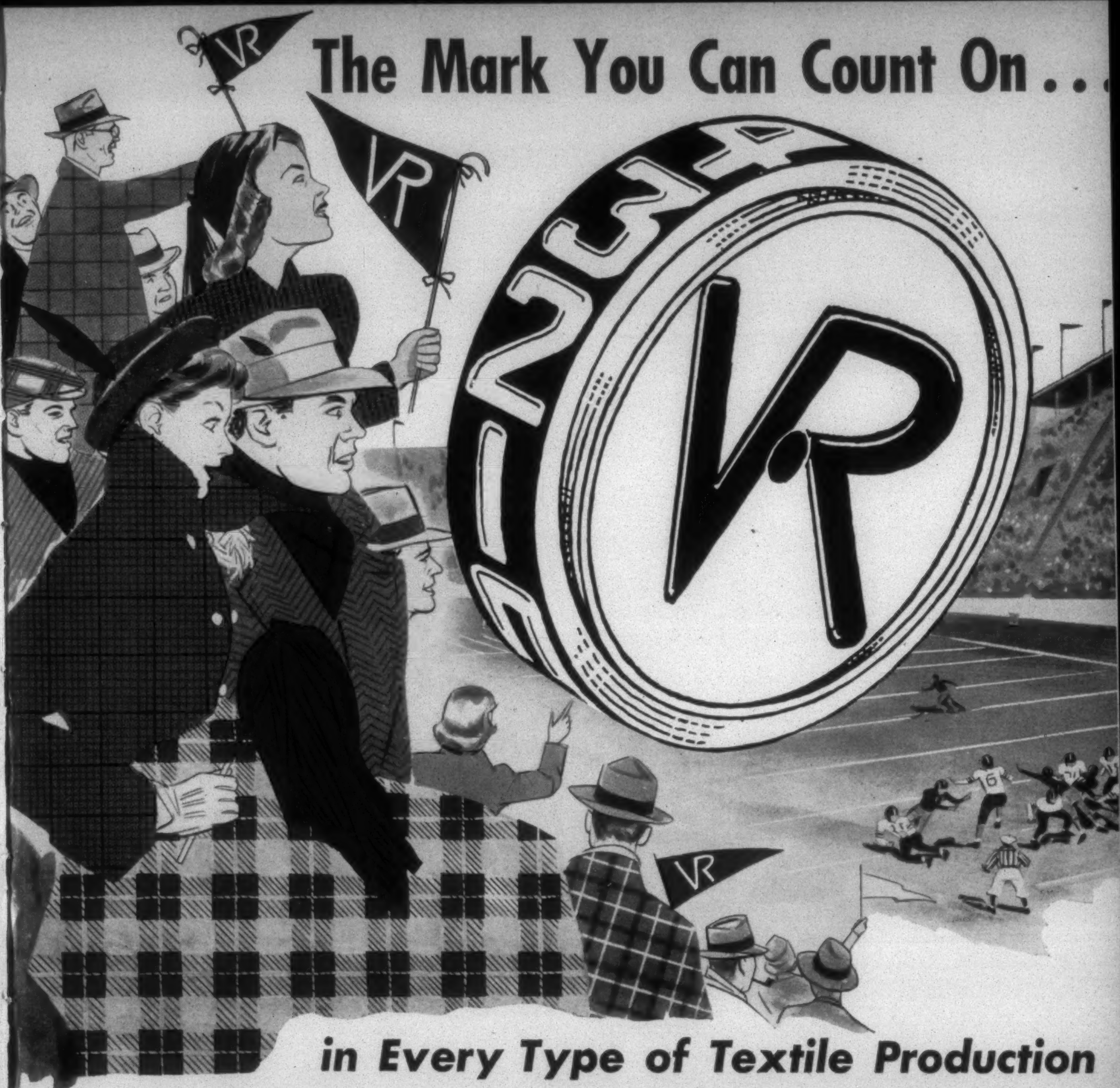
The design allows high velocity through the unit—gives effective saturation with smaller cross section. Axial-flow fans are on the dry side of the system for longer life, easy maintenance.

Better AIR CONDITIONING *... at lower cost*

For natural or synthetic fibres—for any textile process—there is a Bahnson System suited to your needs. You benefit from Bahnson's wide range of equipment.

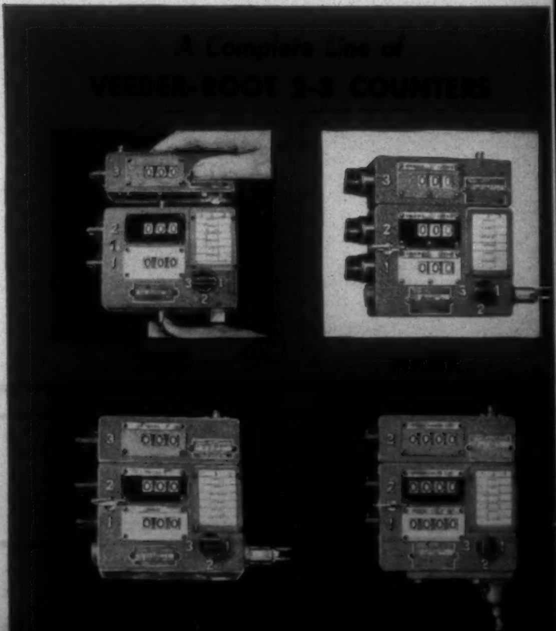
You can learn more about the Centrispray System or other Bahnson Systems. Write us and we will have our representative call to discuss your problem.

Bahnson Company
AIR CONDITIONING HUMIDITY CONTROL
ENGINEERS AND MANUFACTURERS
WINSTON-SALEM, N. C.


The Mark You Can Count On...
VR
V-R
2
3
4
16
in Every Type of Textile Production

Woven, tricot, or circular-knit . . . whatever type of fabric you are producing, there are Veeder-Root Counters to supply you with *Facts-in-Figures* that help to control output and costs in the operation of practically every type of machine in your mill.

This new V-R trademark is the buy-sign that stands for *"The Name That Counts"*... VEEDER-ROOT. Call the nearest V-R office for anything you need in the line of textile counters . . . or any other counting problem.



VEEDER-ROOT INCORPORATED

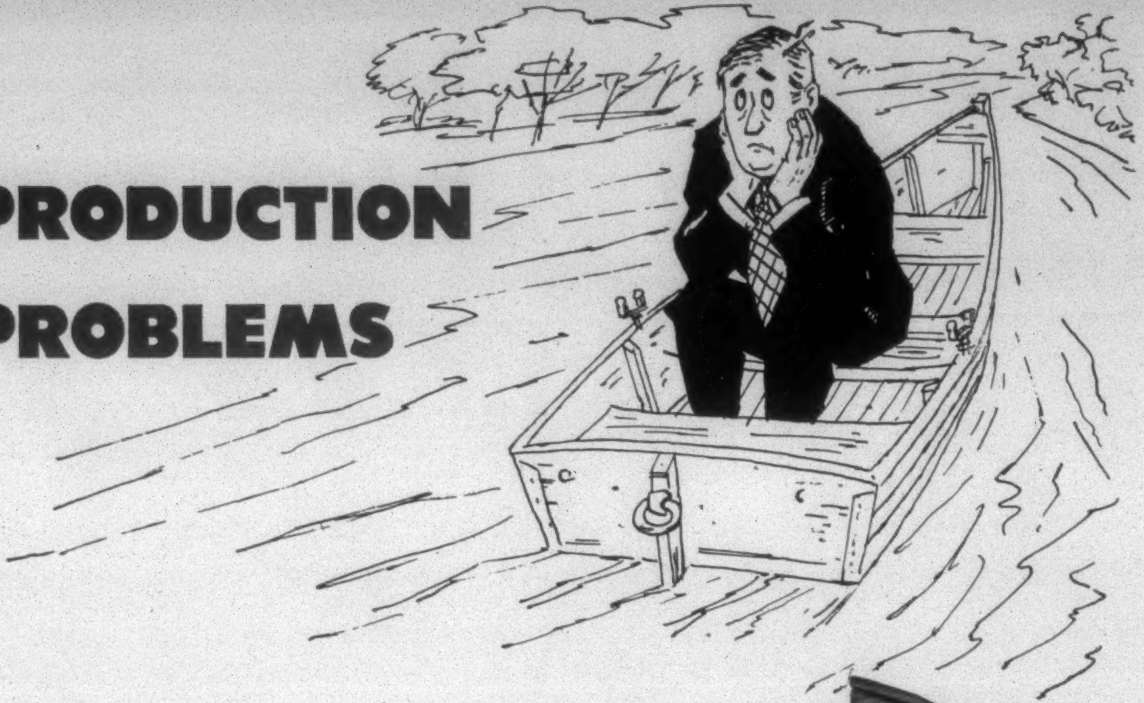
"Counting House of the Textile Industry"

HARTFORD 2, CONN. • GREENVILLE, S. C.

In Canada: Veeder-Root of Canada, Ltd., 955 St. James Street, Montreal 3

In Great Britain: Veeder-Root Ltd., Kilspindie Road, Dundee, Scotland

PRODUCTION PROBLEMS



got you up a creek?

- The function of our Technical Sales Department is to help solve various production problems in the field. These men are constantly working with new products and techniques—perhaps this experience would be helpful in smoothing out production sore spots in your operation.

Our basic, continuing research in starch chemistry is unsurpassed . . . under the direction of the foremost research men in this field.

Make the most of these facilities . . . no obligation, of course.

For uniform quality products...for a reliable source of supply. . . depend on Corn Products Refining Company.

write to

CORN PRODUCTS REFINING CO.

17 Battery Place, New York 4, N. Y.

Globe and Eagle are registered trade-marks of Corn Products Refining Company, New York, N. Y.

From 5

ATLANTA

ASHEVILLE

CHARLOTTE

GASTONIA

HIGH POINT

CONVENIENT WAREHOUSES

. . . come the products of some of the outstanding paper mills in the country.

Since 1906, Henley has been ever alert to the diversity of its customers' needs, and the importance of anticipating their routine, emergency or special job requirements. Today, with increased orders carrying rigid government specifications and a general condition of short supply, Henley is able to call on the resources and abilities of a long list of outstanding mills.

These *dependable* mill connections, plus convenient warehousing of balanced stocks, and 45 years experience in solving all types of customer packaging problems are reasons . . . why buyers of industrial, printing and specialty papers look on Henley today as . . . HEADQUARTERS FOR SERVICE.

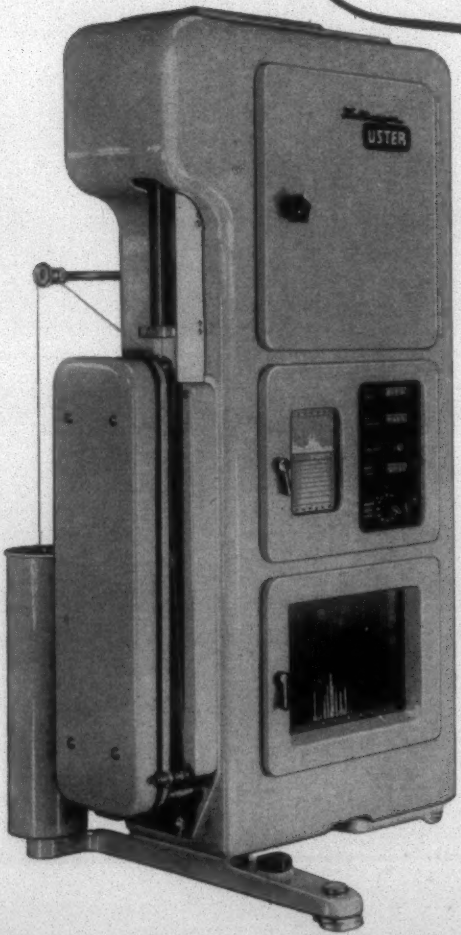
HENLEY PAPER COMPANY

HIGH POINT • CHARLOTTE • GASTONIA • ASHEVILLE
SOMERVILLE-SEYBOLD DIVISION, ATLANTA

3 Big Steps Ahead in Fibre Quality Control

Uster "Universal"
Uster Model "C"
Uster Automatic

se three Uster Machines have com- etely changed old methods of quality control. Their accurate and scientific methods replace the inaccurate and costly processes formerly used, and enable mills to produce far better yarns at lower costs.



Uster Automatic Yarn Strength Tester

This machine automatically tests individual values of breaking strength and elongation of yarns, and also records the sums of both. It records the frequency distribution of breaking strength and the number of tests carried out, and shows the yarn count of each section tested.

Thus, for the first time in textile history, it is possible to test yarn strength without any possibility of incorrect results due to human error . . . and to tremendously speed up the testing process. Every yarn mill needs a Uster Automatic Yarn Strength Tester.

6 Interchangeable Capacities for Breaking Strength

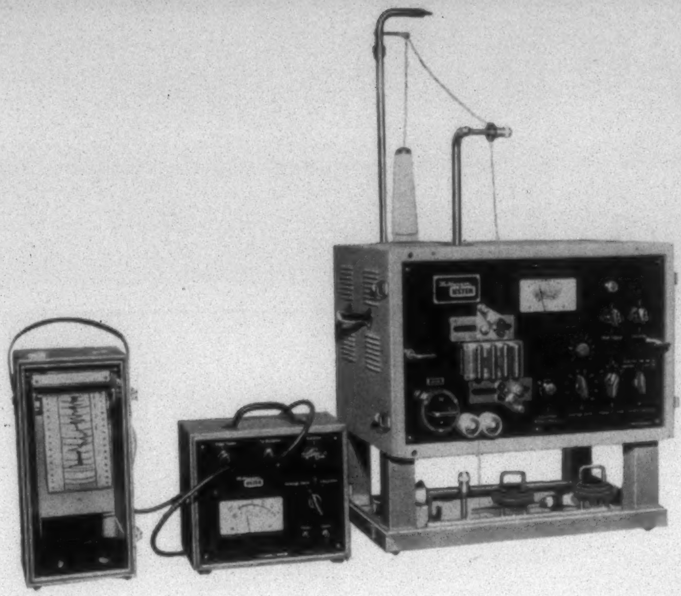
3 Interchangeable Capacities for Elongation

1000 or more Tests per Day

The Standard by Which Yarns are Made, Bought, and Sold

Evenness Tester
Evenness Tester
Yarn Strength Tester

Tremendous interest was shown in this equipment at the International Textile Exposition held in Lille, France, and at its first American showing at the Textile Research Institute Meeting in New York this November. If you have not yet gotten full information on these machines, write for it today.



Uster Model "C" Evenness Tester

This model is made especially for testing continuous filaments. Its operation is similar to that of the Uster "Universal" and it can also be combined with the Uster Electronic Integrator.

Uster "Universal" Evenness Tester
Universal in Range and Speed
Controls Quality and Production Methods

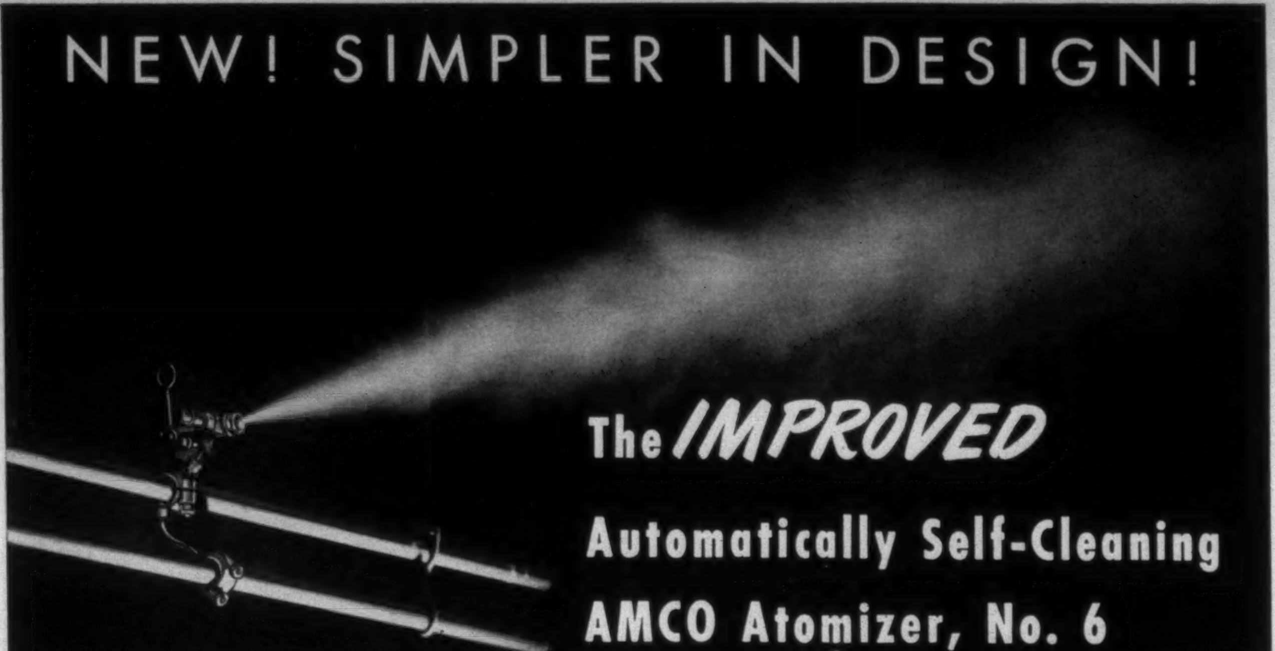
The Uster "Universal" tests any spun material of any weight . . . wool tops, sliver, roving, and yarn . . . at unwinding speeds from 2 to 100 yards per minute and at paper speeds from 2/5" to 10" per minute.

By testing a marked piece of goods through all of its processes, from carding to finished yarn, the Uster "Universal" accurately indicates which piece of equipment is causing irregularities, so that necessary corrections can be made. With the Uster "Universal" you can maintain any predetermined standard of quality and save time and money in the process.

THE ELECTRONIC INTEGRATOR: This machine eliminates all need for manual calculations. It automatically computes the average percentage of variation from the findings of the Uster Tester and thus provides instant and significant figures . . . also speeding the testing process materially. In mills where the Tester is in continuous operation, the Electronic Integrator should always be used.

In Canada: Hugh Williams & Co., 47 Colborne Street, Toronto, Ontario

USTER CORPORATION • 2516 Wilkinson Blvd., Charlotte, N. C.
Sales Offices: Boston — Philadelphia — Atlanta



NEW! SIMPLER IN DESIGN!

The *IMPROVED* Automatically Self-Cleaning AMCO Atomizer, No. 6

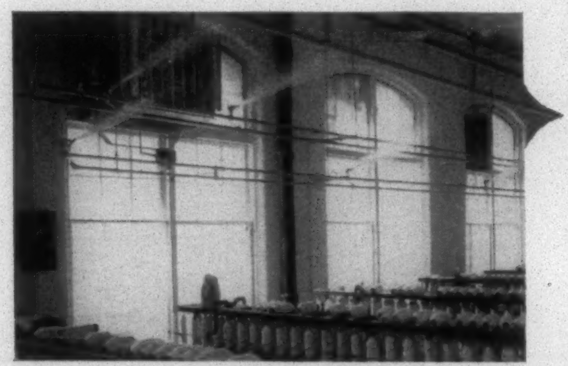
AMCO No. 6 atomizer retains all the time-tested features of the popular No. 5 unit . . . plus additional features which assure improved spray quality. Its better performance and ease of maintenance make this automatically self-cleaning atomizer superior for new installations and replacements.

CONSTRUCTION AMCO No. 6 is made from metals which have proved their resistance to erosion, corrosion and mechanical wear. More rugged construction, fewer parts and greater simplicity in design make servicing easy.

SPRAY A micro-atomizing nozzle produces an exceptionally fine, smoke-like spray which is projected a great distance, intimately mixing with room air. Discharge is adjustable. An entirely new valve action insures positive water shut-off.

SELF-CLEANING The air and water nozzles are automatically self-cleaned each time the compressed air is shut off manually or by humidity control.

AMCO No. 6 conforms to standard specifications. It is interchangeable with AMCO atomizers Nos. 5 and 4 where at least 20 pounds per square inch is maintained on air lines and the water lines are under gravity control.



CHECK THESE PRACTICAL BENEFITS

— yours with

AMCO CONTROLLED HUMIDIFICATION

- Regain maintained—Normal moisture content of fibers retained during processing and in finished fabrics.
- Constant weight of yarn and cloth per given length made possible—yarn counts kept more even.
- Output increased—Static electricity eliminated as a problem. Closer machine adjustments and higher speeds maintained. Materials kept in best condition for processing.
- Product quality improved—Fewer imperfections from pieced-up ends. Stronger, smoother and more uniform fabrics. Yarn and cloth sheen improved.
- Waste reduced—More yarn produced from each pound of raw material. Less broken fibers, dust and fly in product.

AMCO

HUMIDIFICATION • COOLING • AIR CONDITIONING

AMERICAN MOISTENING COMPANY, PROVIDENCE, R. I. • ATLANTA • BOSTON • CAMDEN • CHARLOTTE • AFFILIATED WITH GRINNELL COMPANY, INC.

an ANTIFOAMING agent
of unlimited capabilities

Depuma*

Breaks FOAM with *exceptional* efficiency

An odorless, viscous emulsion, **DEPUMA** de-foams without **emulsifying** or **evaporating.** When stirred into dye liquors and print pastes, it slowly rises to the surface, breaking the foam with amazing effectiveness.

PRINTING—Depuma does not affect the viscosity of print pastes, thus avoiding undesirable penetration and possible loss in color value.

DYEING—Depuma may be added to either acid or alkaline liquors.

SOAPING—Depuma permits the use of larger amounts of detergents in soapers when desirable. **Does not interfere** with detergent qualities and **prevents re-foaming of the liquor.**

A.A.P. technicians will be happy to demonstrate **DEPUMA** at your plant. For detailed information on this important addition to the A.A.P. range of superior textile auxiliaries, as well as data regarding your individual requirements, consult our nearest branch.

AMERICAN ANILINE PRODUCTS, INC.

50 Union Square, New York, N. Y. • **Plant: Lock Haven, Pa.** • **Branches:** Boston, Mass.
Providence, R. I. • Philadelphia, Pa. • Charlotte, N. C. • Chicago, Ill. • Los Angeles, Cal.
Chattanooga, Tenn. • **Dominion Anilines & Chemicals, Ltd.** • Toronto, Canada • Montreal, Canada

*Reg. U. S. Pat. Off.

In easy reach — a high quality supply of card clothing and associated products! From Ashworth's 4 factories, we move supplies through distributing points in 7 strategic textile centers — Atlanta, Charlotte, Dallas, Fall River, Greenville, Philadelphia and Worcester.
To help keep your plant in operation at a high rate of efficiency, Ashworth also maintains 6 carefully located repair shops — set up to furnish prompt repair service, top flat reclothing, lickerin rewinding, etc.

Ask our nearest office to explain Ashworth Free Surveys. To increase your card efficiency, they're worth asking about — today.

PRODUCTS AND SERVICES

Card Clothing for Cotton, Wool, Worsted, Silk, Rayon and Asbestos Cards and for All Types of Napping Machinery. Brusher Clothing and Card Clothing for Special Purposes. Lickerin Wire and Garnett Wire. Sole Distributors for Platt's Metallic Wire. Lickerins and Top Flats Reclothed.

ASHWORTH BROS., INC.

American Card Clothing Co. (Woolen Division)

Fall River *†‡ Worcester *‡ Philadelphia*†‡ Atlanta†‡
Greenville*†‡ Charlotte†‡ Dallas†‡ (Textile Supply Co.)
Factory* Repair Shop† Distributing Point‡

"HAVING TROUBLE WITH DIFFICULT WEAVES? THIS IS FOR YOU!"

"TELLS HOW EASY IT IS TO INCREASE YOUR WEAVING EFFICIENCY!"

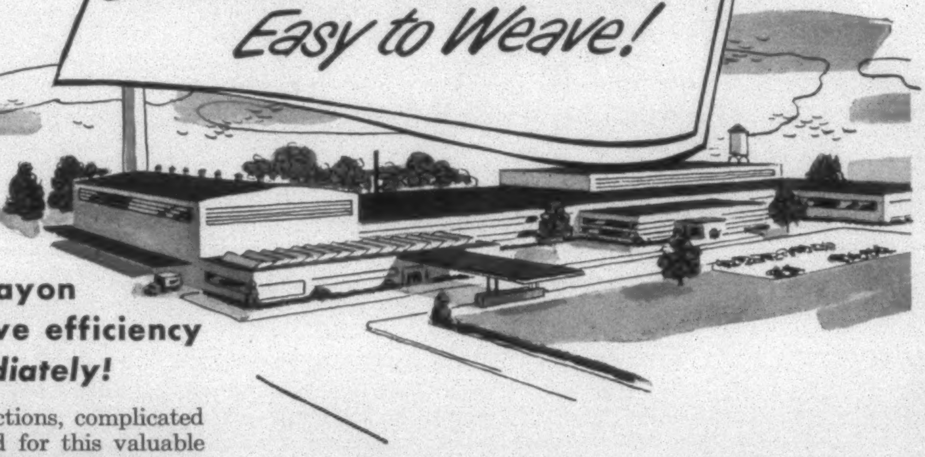
NEW FOLDER tells how to size... spun rayon warps more efficiently!

Another Staley Development For the Textile Industry!

STA·GEL
THE NEW TYPE, HIGH EFFICIENCY
SPUN RAYON WARP
SIZE

for
SPUN RAYON
and Mixtures of Staple Rayon with other Fibers

Makes Difficult Constructions Easy to Weave!



Find out how to cut rayon sizing costs ... improve efficiency in your plant—*immediately!*

Troubled with difficult constructions, complicated spun rayon weaves? Then send for this valuable folder now. It tells the story of STA-GEL, the new high efficiency sizing for spun rayon and mixtures of staple rayon with other fibers.

Learn about the six major advantages that this new sizing offers you . . . the many ways in which STA-GEL has proved its effectiveness on complicated constructions in mills. You'll be amazed at the important time and money saving efficiency of new STA-GEL in your plant! Send now for the facts about STA-GEL!

A. E. Staley Mfg. Co., Decatur, Ill., U. S. A.

THERE IS A SUPERIOR QUALITY STALEY STARCH FOR EVERY TEXTILE NEED

Dependable Service from
Atlanta, Ga.
Boston, Mass.
Chicago, Ill.
Decatur, Ill.
New York, N. Y.
Philadelphia, Pa.
San Francisco, Calif.
Spartanburg, S. C.

STA·GEL The new type, high efficiency SPUN RAYON WARP SIZE

MADE BY STALEY'S

A. E. Staley Mfg. Co., Dept. TB-11
Decatur, Ill., U. S. A.

Send me the facts about STA-GEL, the new kind of rayon sizing.

NAME ____________________

COMPANY ____________________

ADDRESS ____________________

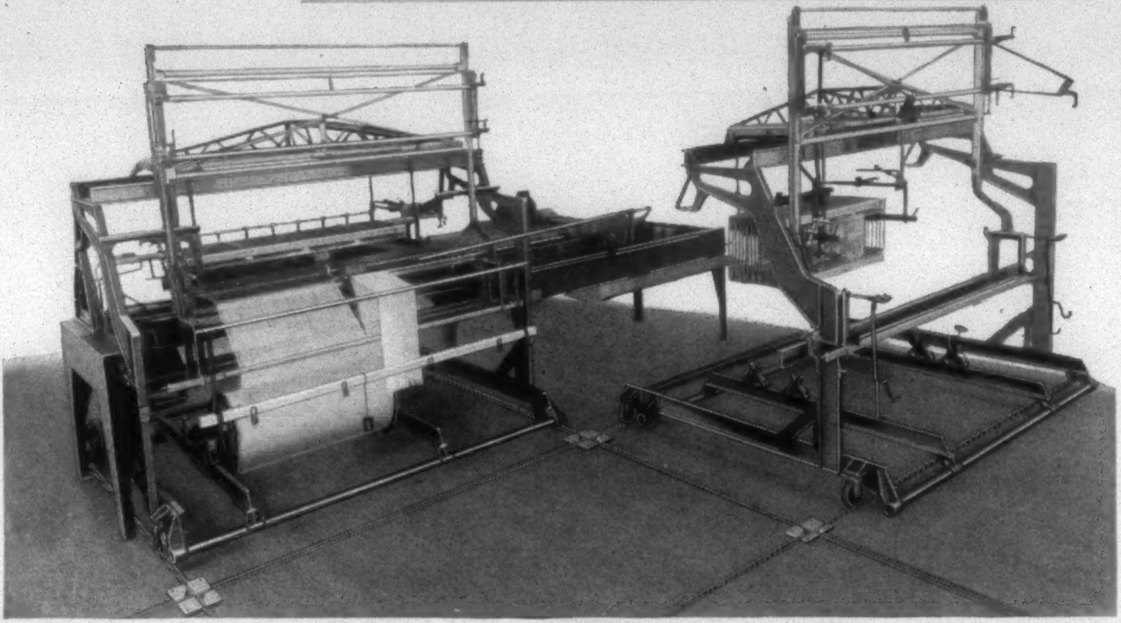
CITY & ZONE ____________________ STATE ____________

BARBER COLMAN

FASTER REPLACEMENT

STRAIGHTER WARPS

LOWER COSTS



BARBER-COLMAN MODEL F *Warp Drawing Machine*

The Model "F" Barber-Colman Warp Drawing Machine is designed for mills which have a combination of cam and dobby loom work. This particular model is useful to mills that employ 14 to 18 harness shafts or less, with 8 or less banks of warp stop motion. Any mill weaving gingham, shirtings, dress goods and suitings will find this machine exceptionally useful, especially if quick change-overs in style and pattern are common. This model answers a variety of needs in your warp replacement scheme.

Field reports show up to 3000 Ends per Hour
Draws warps from 10 to 300 ends per inch
Draws from flat sheet or 1 x 1 lease
Draws from single or double beam, or split sheet
Draws 1 x 1 lease in double beam or split sheet

Warp threads are drawn through drop wires, heddles and reed
IN ONE OPERATION
from any predetermined draft

HARNESS FRAME LENGTHS

Size of Machine	Maximum Overall Length of Harness
48	54″
66	72″
86	92″

MODEL "F" MACHINE CAPACITIES
The Model "F" can be furnished in the following capacities at no difference in cost:
Reed, 14 Harness, 8 Banks of Drop Wires
Reed, 16 Harness, 6 Banks of Drop Wires
Reed, 18 Harness, 4 Banks of Drop Wires
DROP WIRE CAPACITY: 9/32" through 3/4" wide

WILL DRAW

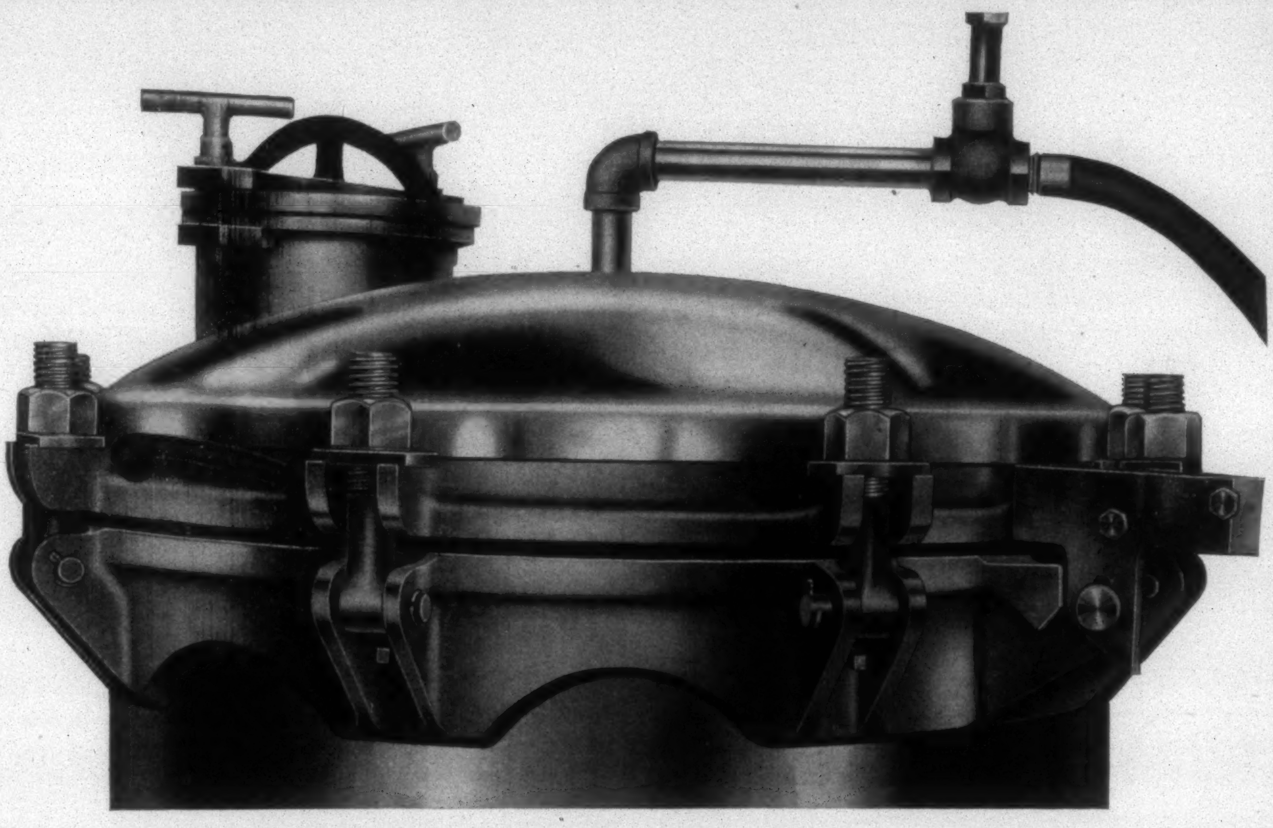
- Cotton Yarns
- Filament Yarns
- Spun Yarns
- Woolens and Worsteds
- Monofilaments

AUTOMATIC SPOOLERS • SUPER-SPEED WARPERS • WARP TYING MACHINES • DRAWING-IN MACHINES

BARBER-COLMAN COMPANY
ROCKFORD • ILLINOIS • U. S. A.
FRAMINGHAM, MASS., U. S. A. GREENVILLE, S. C., U. S. A. MANCHESTER, ENGLAND MUNICH, GERMANY

Do the Job Better

WITH BURLINGTON'S PACKAGE DYEING EQUIPMENT

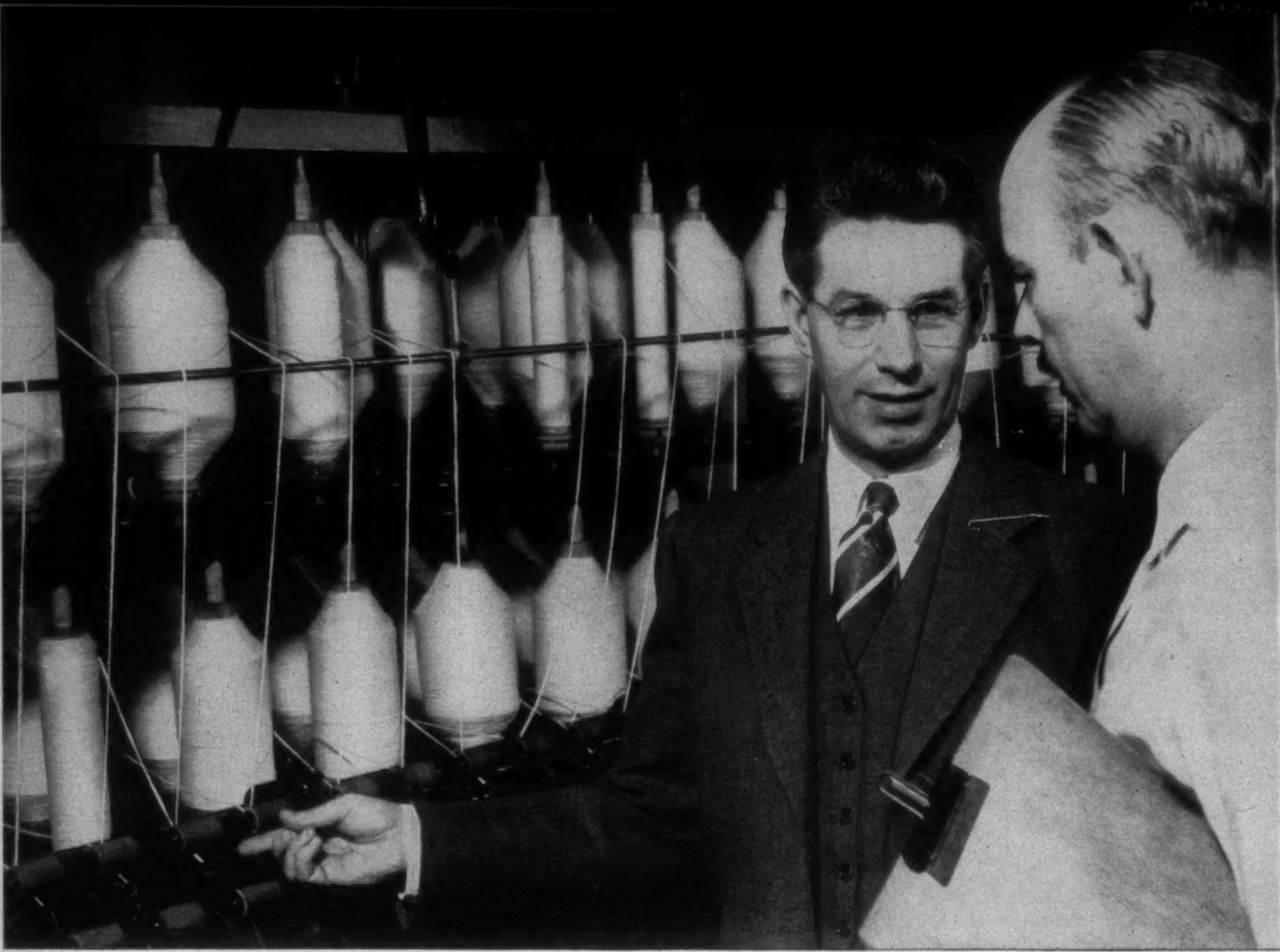


Top of a Burlington Kier—Note Heavy Stainless Steel Construction

Burlington Engineering Company fabricates stainless steel dyeing equipment for all types of textile operations. The most modern advancements, as well as many exclusive Burlington features, are found in our equipment. We invite you to visit our plant and follow our construction from start to finish. See exactly why Burlington-built machines will do a better job for you.

Burlington's superior dye house products include becks, package and beam machines, trucks, and other machinery. Burlington Engineering Company also fabricates products of stainless steel for any textile use including springs and tubes tailored to your specifications. Consult us for textile needs.

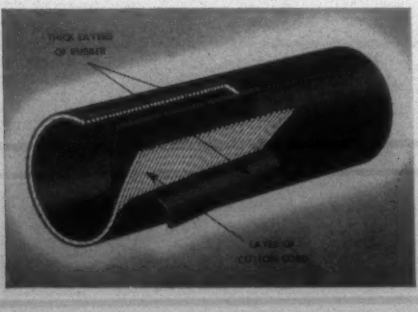
Burlington ENGINEERING COMPANY, INC.
GRAHAM, N.C.



IT TAKES A LONG TIME TO WEAR OUT THESE APRONS

You can't beat Armstrong's Accotex Aprons for long service. Many mill men report Accotex Aprons still running satisfactorily after five or six years, sometimes more.

A Georgia mill, for example, ran a set of NO-700 Accotex Aprons on their Casablanca frames two shifts a day for eight years. At the end of that time, they were still free from cracks and roughness, still running as clean as the day they were put on the frames.



What makes these aprons stand up so well? Simply this: Every Accotex Apron is made of special synthetic rubbers in a patented three-layer construction. Each layer is scientifically designed to do its own special job.

The outer layer is a seamless drafting surface of satin-smooth synthetic rubber of a type that runs clean and resists scuffing. It is specially formulated and treated for life-long smoothness.

The inner layer is another seamless layer of synthetic rubber, designed to resist years of abrasive wear caused by the nose-bar.

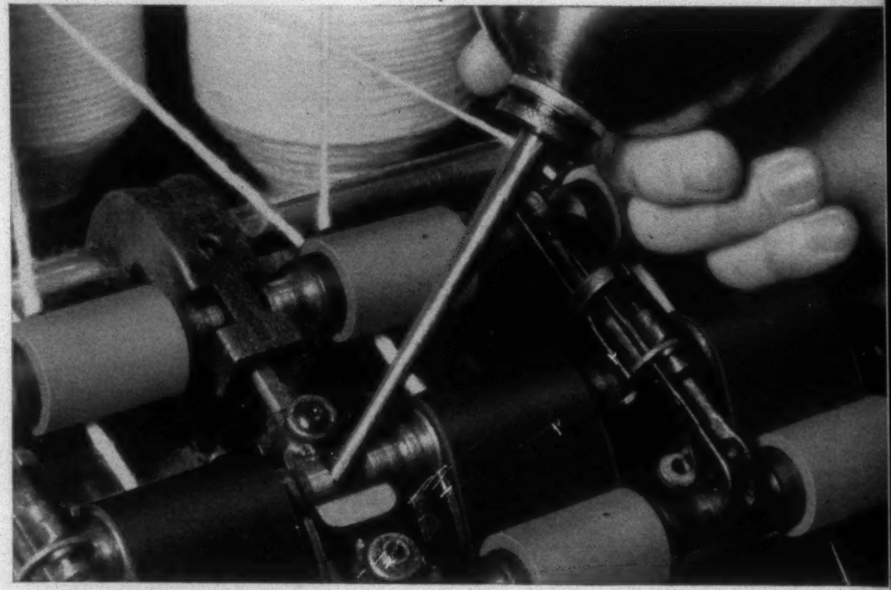
Between these specialized layers is a sturdy cord interliner. It holds the shape of the apron and prevents stretching or curled edges. Vulcanized together, these three layers make a rugged, trouble-free apron.

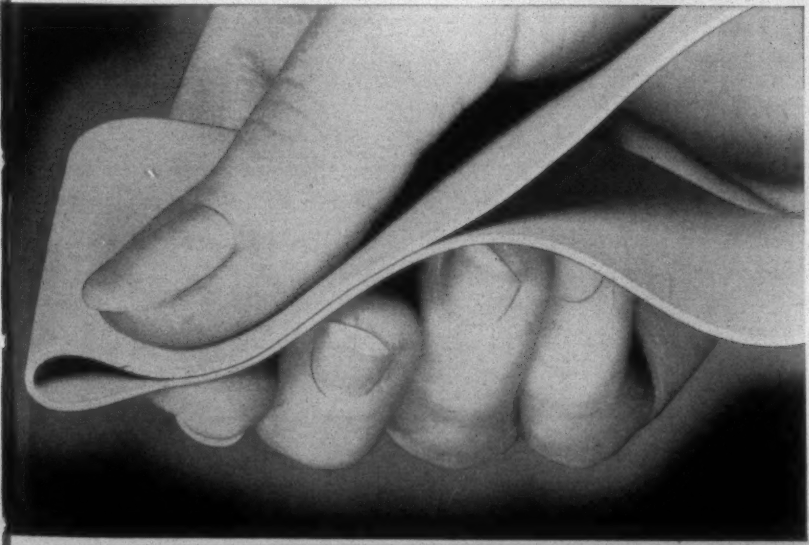
You can get Armstrong's Accotex Aprons for any type of long-draft equipment. For full information, just call your Armstrong representative. He can help you specify the apron best suited to your needs.

Call him today or write Armstrong Cork Company, Textile Department, 8211 Arch Street, Lancaster, Penna. Accotex Aprons available for export.

SATIN FINISH: Rub your fingers across the surface of an Armstrong's Accotex® Apron. You'll discover it feels smooth as satin. Each Accotex Apron is ground to the exact thickness you specify and—by a patented process—given this smooth, scuff-resistant surface.

CLEAN-RUNNING: Because Accotex Aprons don't absorb oil or soften from exposure to dyes and commonly used textile solvents, they have no tendency to pick up lint. They won't sweat under any mill condition. If you want a durable, clean-running apron, you can't beat Armstrong's Accotex Aprons. Try them on a test frame in your own mill.





SUPER-FLEXIBLE: Armstrong's NO-750 Accotex Aprons have the extra flexibility and abrasion resistance needed on a single-apron frame. They hug the nose bar without buckling and so insure smooth slip-roll action. If you are considering new single-apron long-draft equipment, be sure to specify Armstrong's Accotex Aprons.

ARMSTRONG'S ACCOTEX APRONS

one of Armstrong's complete line of textile mill supplies

C&K LOOMS *run on schedule...too!*

With your weaveroom on an "express run" ... take no chances with your schedule. Keep your C&K Looms up to top efficiency with C&K Parts that are always dependable... and readily available.

For competition begins in the weaveroom. And under today's increasingly competitive conditions, it's important to remember that C&K Parts are made for C&K Looms by the C&K Loom Works ... and that they're the *natural replacements* to keep your fabric output up to original standards of volume and quality ... *C&K Quality* ... which makes it good business for you to say: *This Fabric is Woven in the U.S.A.* ... on Call-Box Looms built by C&K.

CROMPTON & KNOWLES LOOM WORKS, WORCESTER 1, MASS., U. S. A.
Philadelphia, Pa. • Charlotte, N. C. • Allentown, Pa. • Crompton & Knowles Jacquard & Supply Co., Pawtucket, R. I.

Keep Your Looms Running Right
...with C&K LOOM PARTS

C&K
A Loom for every Woven Fabric

This "Invisible Trademark" Stands Back of the Trademarks of the World's Finest Woven Fabrics

"...from little acorns grow."

1931 1951

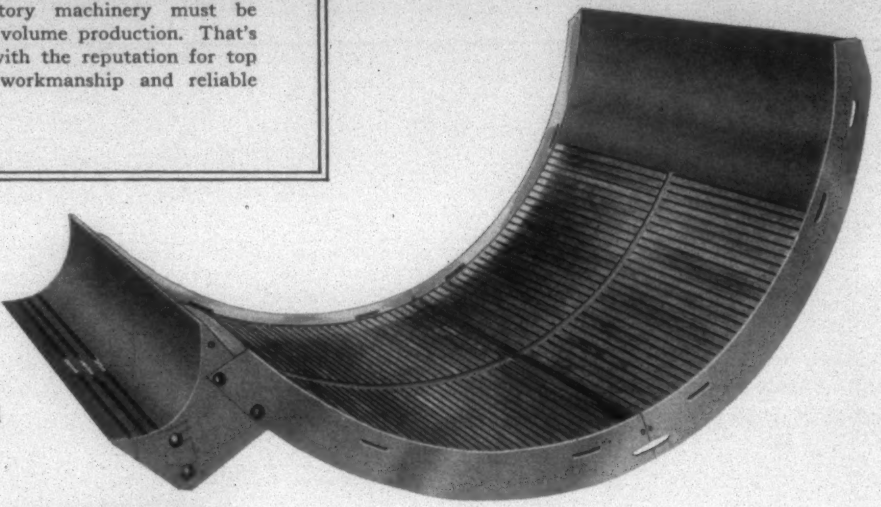
In this our twentieth anniversary year, may we express to our friends in the textile industry, our heartfelt thanks and our humble appreciation for your friendship, understanding and loyal support that has made our growth possible. To you we are sincerely grateful.

Meadows
MANUFACTURING COMPANY
ATLANTA

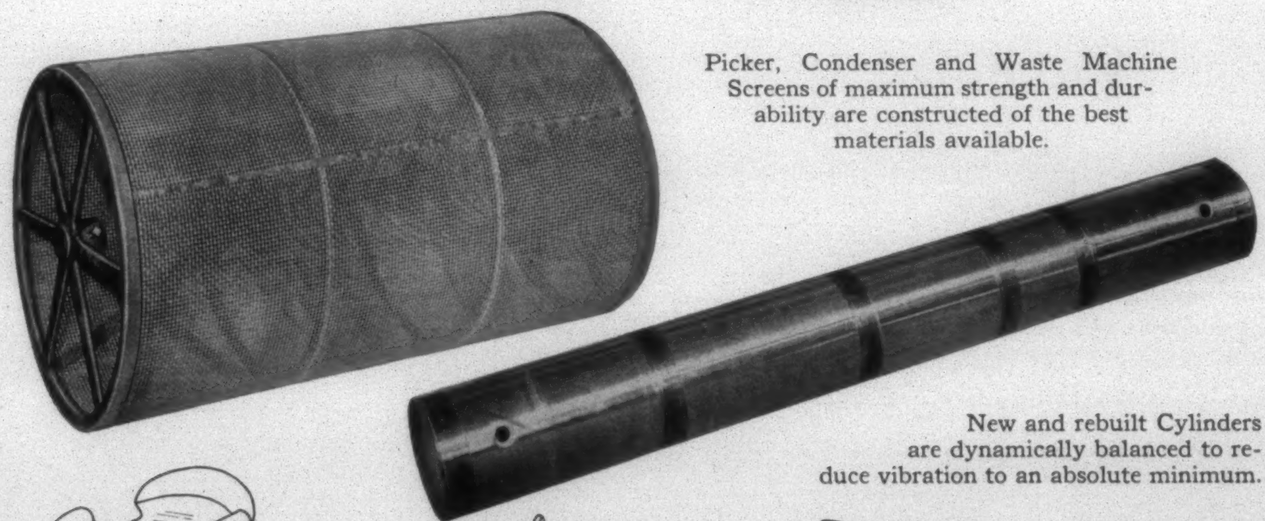
QUALITY...BACKED BY A DESIRE TO PLEASE

MORE PRODUCTION AT LOWER COSTS with GASTONIA TEXTILE SHEET METAL PARTS

The quality and the profit of your end product starts at the beginning—where preparatory machinery must be geared for efficient, economical volume production. That's our job—a job for specialists with the reputation for top quality products, painstaking workmanship and reliable service.

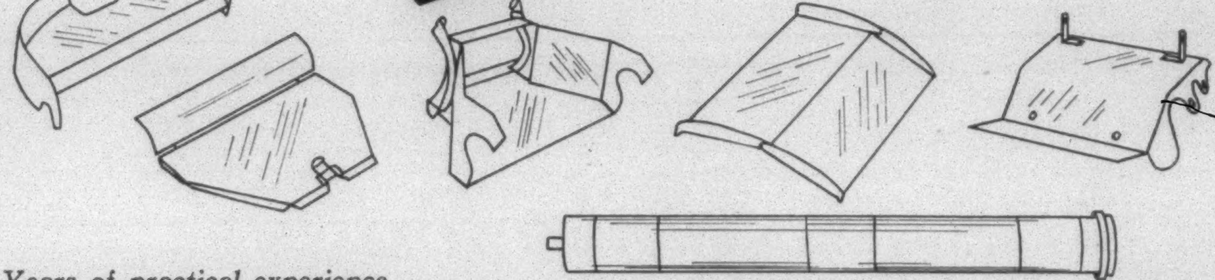


Standard type rib or perforated Card Screens are precision built on special jigs. Every screen is inspected and double checked for accuracy and tolerance.



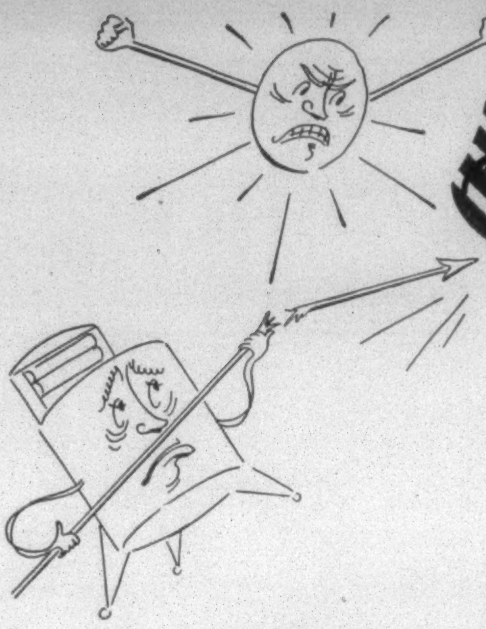
Picker, Condenser and Waste Machine Screens of maximum strength and durability are constructed of the best materials available.

New and rebuilt Cylinders are dynamically balanced to reduce vibration to an absolute minimum.



Years of practical experience —the finest of raw materials —and precision machinery in the hands of skilled workmen go into every product.

GASTONIA TEXTILE SHEET METAL WORKS, Inc.
GASTONIA, NORTH CAROLINA
A SHEET METAL WORKS SERVING TEXTILE MILLS



Direct Dyed

but triple fast

Not just fast to laundering and perspiration—fast to light, too!

Yes, CUPROFIX colors and after-treatment give cotton and rayon fabrics such a high degree of fastness *to all three* . . . that direct dyeing now compares favorably with more expensive vat dyeing!

But *only* with CUPROFIX can you expect direct-dyed fabrics to have satisfactory fastness to *sunlight.* Only CUPROFIX gives you triple fastness in direct dyeing.

Economy—and Quality, too!

You save many dollars when you use direct dyes. For pennies more—relatively—you can make the big saving *without* sacrificing quality . . . and compete successfully with many vat-dyed fabrics.

Get acquainted with CUPROFIX now—write us for Booklet U. S. 125. SANDOZ CHEMICAL WORKS, INC., 61 Van Dam St., New York 13, N.Y.

Label Resin-Treated Garments "WASHABLE"

Adding CUPROFIX to the resin bath increases fastness to washing sufficiently to permit labeling garments "washable" instead of just "dry cleanable". It also:

materially increases efficiency of the usual resin treatment

eliminates in many cases the effect of resin on light fastness.

SANDOZ CHEMICAL WORKS, Inc.
61 Van Dam Street, New York 13, N. Y. Application laboratories and stocks at Boston, Philadelphia, Charlotte, Los Angeles, Toronto. Other branches at Providence, Paterson, Chicago.

Fast to Light · Wash · Perspiration
Pressing · Cleaning

CUPROFIX

BY SANDOZ

SANDOZ *thinks ahead with textiles*

SANDOZ

Complete Blending, Opening, Cleaning and Picking Systems for Cotton Mills

Opening, Blending and Picking Systems for Synthetic Fibers

New, and Rebuilt, Single-Process Pickers

The Aldrich Synchronized Single Process Picking System has consistently produced more uniform card sliver than any other picking system.

Parts for Kitson Pickers Always in Stock for Immediate Delivery

AldricH MachinE WorkS
Greenwood, South Carolina

use ½ lb. NACCONOL to 100 gallons of water, with constant feed to maintain concentration.

get Cleaner, loftier, whiter wool with less odor and no soap residues. More uniform dyeing at lower cost.

Yes, backwashing tops in a NACCONOL solution saves money and improves quality. And results are uniform because NACCONOL is mass-produced to the exacting quality standards of the dyestuffs industry.

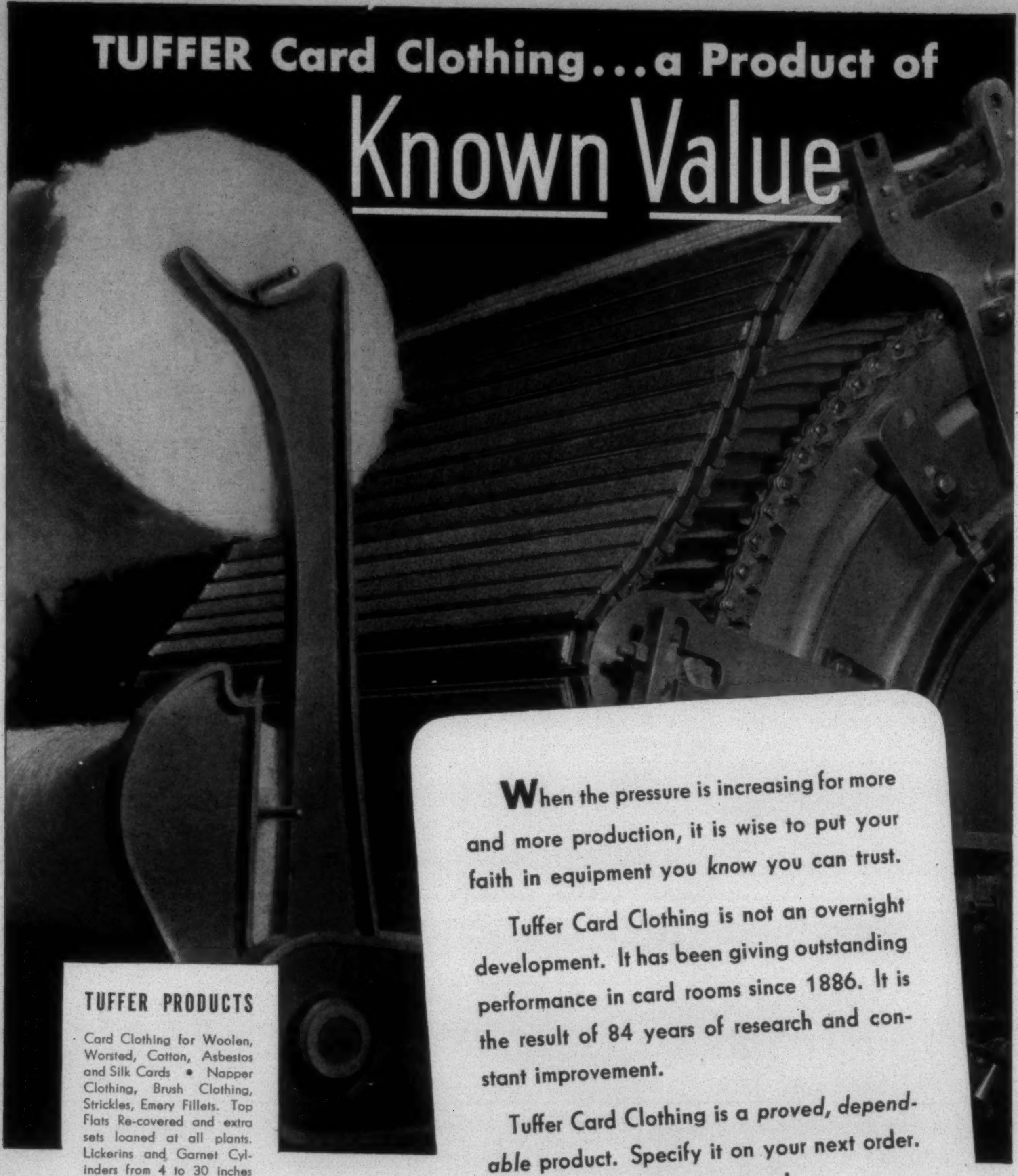
For prompt service and technical assistance, write, wire or phone our nearest office.

NATIONAL ANILINE DIVISION
ALLIED CHEMICAL & DYE CORPORATION
40 RECTOR STREET, NEW YORK 6, N.Y. • BOwling Green 9-2240

Boston 14, Mass., 150 Causeway St.	CApitol 7-0490	Richmond 19, Va., 8 North Fifth St.	Richmond 2-1930
Providence 3, R.I., 15 Westminster St.	DExter 1-3008	Columbus, Ga., Columbus Interstate Bldg.	Columbus 3-1029
Philadelphia 6, Pa., 200-204 S. Front St.	LOmbard 3-6382	Greensboro, N.C., Jefferson Standard Bldg.	GReensboro 2-2518
San Francisco 5, Cal., 517 Howard St.	SUtter 1-7507	Chattanooga 2, Tenn., James Building	CHattanooga 6-6347
Portland 9, Ore., 730 West Burnside St.	Beacon 1853	Atlanta 2, Ga., 140 Peachtree St.	CYPress 2821
Chicago 54, Ill., The Merchandise Mart	SUperior 7-3387	New Orleans 18, La., 714 Carondelet Building	Raymond 7228
Charlotte, 1 N.C., 201-203 West First St.	CHarlotte 3-9221	Toronto 2, Canada, 137-143 Wellington St. W.	Elgin 6495

*Reg. U.S. Pat. Off.

TUFFER Card Clothing...a Product of
Known Value



When the pressure is increasing for more and more production, it is wise to put your faith in equipment you *know* you can trust.

Tuffer Card Clothing is not an overnight development. It has been giving outstanding performance in card rooms since 1886. It is the result of 84 years of research and constant improvement.

Tuffer Card Clothing is a *proved, dependable* product. Specify it on your next order. Let it prove itself on your cards.

TUFFER PRODUCTS

Card Clothing for Woolen, Worsted, Cotton, Asbestos and Silk Cards • Napper Clothing, Brush Clothing, Strickles, Emery Fillets. Top Flats Re-covered and extra sets loaned at all plants. Lickerins and Garnet Cylinders from 4 to 30 inches and Metallic Card Breasts Rewired at Southern Plant • Midgley Patented, and Howard's Special Hand Stripping Cards • Inserted Eye & Regular Wire Heddles

HOWARD BROS. MFG. CO. WORCESTER 8, MASSACHUSETTS

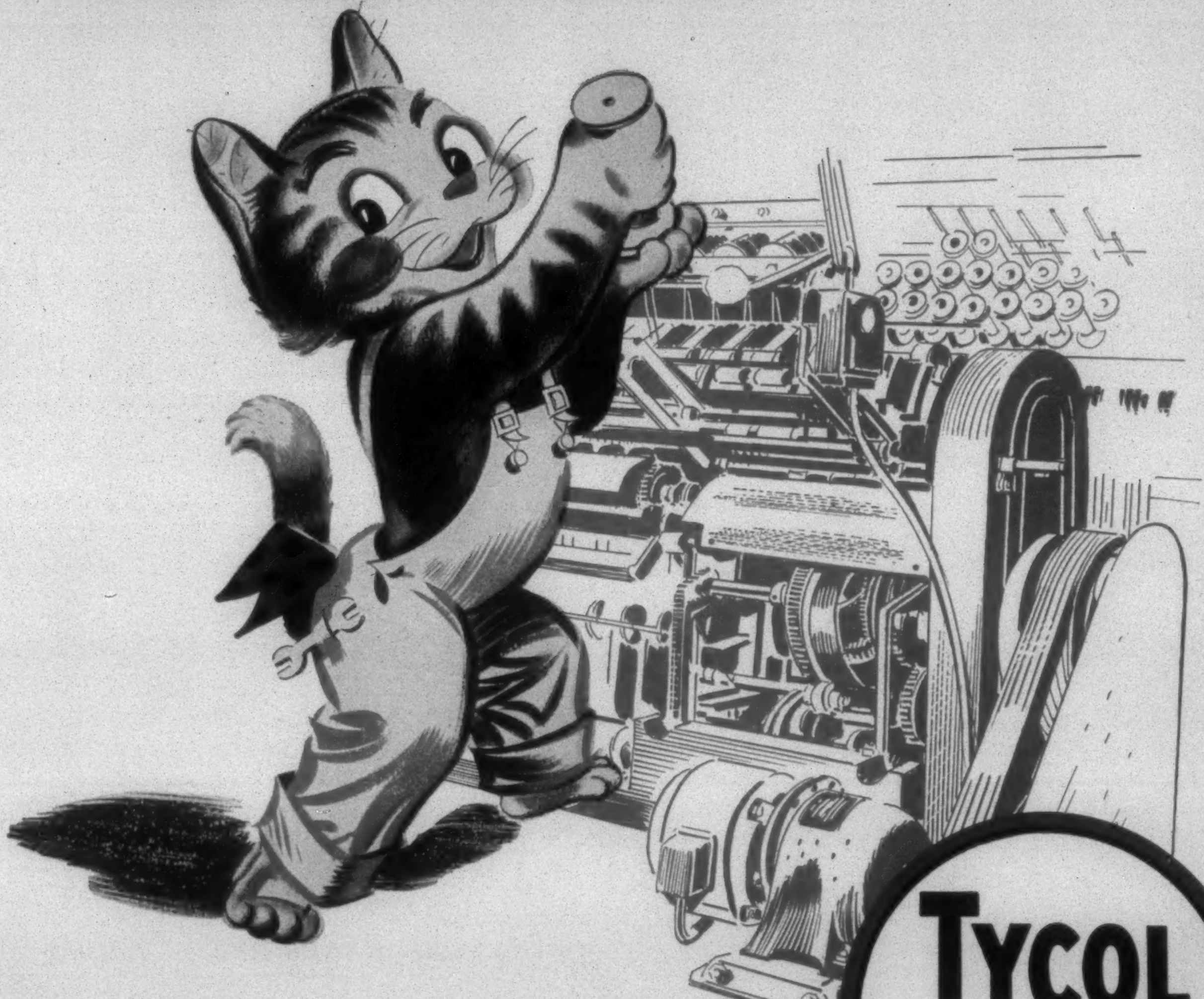
Southern Plants: Atlanta, Ga. and Gastonia, N. C.

Branches: Philadelphia, Pa. and Blanco, Texas *Direct Representation in Canada* A-4

TUFFER CARD CLOTHING

IMPROVES PRODUCTION ALL ALONG THE LINE

"Tycol Alweave cuts power consumption... lessens tube loss... lowers equipment down time"



Check! Tycol Alweave Textile Oils reduce thread breakage —hold spindle drag and bolster losses to a minimum. Their high stability and easy scourability let mills operate at top production speeds, with far fewer stoppages.

Specially designed Tycol Alweave Oils are available in a wide range of both mineral and compounded grades. They'll step up efficiency in every mill process.

Learn more about Tycol Alweave Oils. Get in touch with your nearest Tide Water Associated office today.

TYCOL

INDUSTRIAL LUBRICANTS

Boston • Charlotte, N. C. • Pittsburgh
Philadelphia • Chicago • Detroit
Tulsa • Cleveland • San Francisco

TIDE WATER ASSOCIATED OIL COMPANY
17 BATTERY PLACE • NEW YORK 4, N. Y.

SEND FOR A FREE COPY OF "TIDE WATER ASSOCIATED LUBRICANIA"

Always Uniform

Whether it's in shooting or slashing . . . reliability depends as much on what you use as how you use it.

The Keever aim for many years has been to keep Victor Mill Starch at unvarying top quality.

Better penetration, stronger warps, less shedding in high-production mills are often due to Victor Mill, "The Weaver's Friend" . . . and the conscientious help of the Keever man who serves you.

TEXTILE SALES DIVISION
1200 WOODSIDE BUILDING
GREENVILLE, SOUTH CAROLINA
Charles C. Switzer, Manager

THE KEEVER STARCH CO. ★ GENERAL OFFICES ★ COLUMBUS 15, OHIO
Corn, wheat and other grain products for industry since 1898

A FAST BLUE FOR VISCOSE

Pontamine* Fast Blue CPL is a direct-dyeing, greenish-blue recommended for its good light and washing fastness on viscose-process rayon when after-treated with resin finishes. It is of particular interest for dyeing rayon dress goods, sportswear, suitings, drapery and upholstery materials.

It has excellent hot solubility, penetrates and levels well. Recommended for use in all types of dyeing equipment. For information on this new direct dye—or for help on any coloring problem—consult our Technical Staff.

E. I. du Pont de Nemours & Co. (Inc.),
Dyestuffs Division,
Wilmington 98, Delaware.

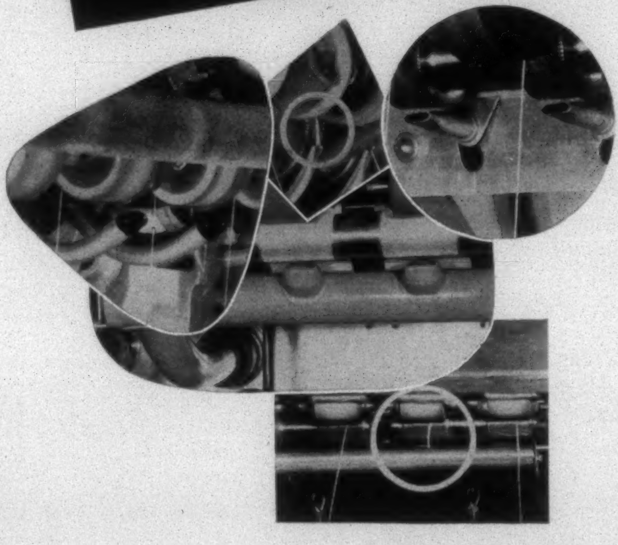
*REG. U. S. PAT. OFF.

Du Pont Dyestuffs

DU PONT
REG. U. S. PAT. OFF.

BETTER THINGS FOR BETTER LIVING . . . THROUGH CHEMISTRY

There Are Many Profits in



This Is the Business End of Pneumafil

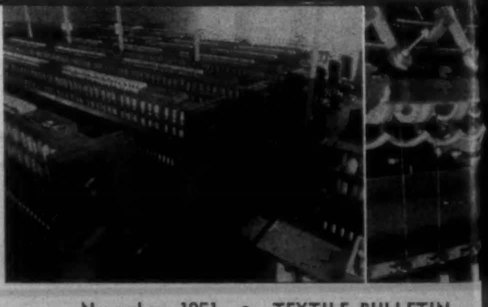
Pneumafil replaces the scavenger roll on spinning frames. Its various forms shown here adapt it for Cotton, Wool, Worsted, Rayon, Jute, Asbestos, Tow, and Blends.

Pneumafil reduces ends down, greatly reduces slubs and gouts, eliminates spinning doublings, reduces spinning labor, and cuts down-time materially. You reduce costs, increase production, and improve yarn quality when you install Pneumafil on your spinning frames.

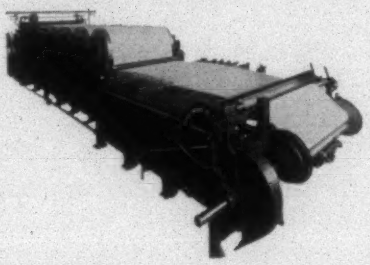
There Is a Big Profit Here

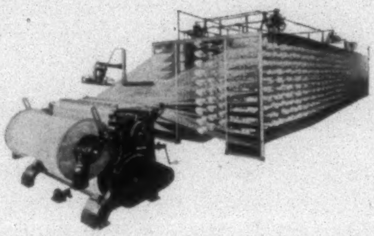
Pneumafil Systems pick up broken ends, open them, and collect the opened fibres clean and ready for reuse without waste machine processing. On ordinary fibres the savings are impressive. On expensive fibres the savings pay for Pneumafil installations in a few months.

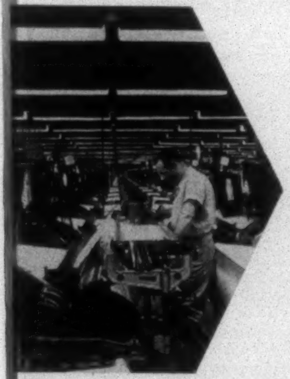
PNEUMAFIL



PNEUMAFIL







. . . and That's Not All

The improved quality yarn reduces work stoppages and increases production in winding, warping, slashing, and weaving, as well as in spinning. It also decreases seconds in finished goods.

You get so many extra profits when you install Pneumafil that it is the best investment you can make. Investigate its advantages right away.

South American and Continental Europe:
Luwa, S.A., Zurich, Switzerland

Canada:
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London, Canada

Mexico:
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Comercia, S.A.
Mexico, D. F., Mexico

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Sales Offices: Boston—Philadelphia—Atlanta

textile bulletin

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Second Annual Conclave

The Second Annual Conclave of graduates and former students of the School of Textiles of North Carolina State College, Raleigh, will be held at the school on Friday and Saturday, Dec. 7 and 8, 1951.

The 1950 Conclave was attended by approximately 200 graduates and former students and was a distinct success and there arose a demand for it to be an annual affair.

Addresses and discussions during the sessions are devoted to a large extent to new developments in textile manufacturing and some excellent speakers have been secured for the 1951 Conclave.

Many of the returning graduates and former students have knowledge based on experiences and the exchange of ideas during meetings and discussions outside of the regular meetings will greatly benefit many.

One feature of the 1951 Conclave, which was missing last year, will be the presence of a large number of graduates who are now connected with textile goods selling agents in New York and know fabrics from the buyer and consumer angle. It is reported that two Pullmans have been booked solid from New York.

The first session of the 1951 Conclave will begin at 10:30 a. m. Friday, Dec. 7, and be followed by an afternoon session. The third session will be at 9:45 Saturday morning.

At 6 p. m. Friday, those present will be guests of TEXTILE BULLETIN in a social hour at a club just outside of Raleigh and that will be followed by a buffet dinner.

Ice Capades, one of the most beautiful ice skating shows now upon the road, will show in the William Neal Reynolds Coliseum Friday and Saturday evenings at 8 p. m. and also present a Saturday matinee at 2 p. m.

Those who expect to attend either of the performances can purchase their tickets in advance by writing the Ticket Office, William Neal Reynolds Coliseum, Raleigh, N. C.

Those who reach Raleigh on Thursday night, Dec. 6, can, if they wish, see the State College-Wake Forest basketball game which will be played at Wake Forest, N. C., at 8 p. m.

The 1951 Conclave not only offers an unusual opportunity to acquire up-to-date textile information but an exceptional choice of amusements.

Daily Worker Begs For Contributions

The time was when the publication of the communist *Daily Worker* was a profitable racket and when its publishers were a cocky lot.

It is interesting therefore to note the recent press dispatch:

> New York, Oct. 30.—The Communist newspaper, the Daily Worker, in another appeal for funds, said today, "There is not enough money to publish for the rest of this week." It asked readers to send in anything from $1 up.
>
> The newspaper has admitted for weeks that its back is to the wall. It blamed its plight on what it called a campaign to intimidate its advertisers and circulation channels.

Excellent Textile Equipment

Those who visited the School of Textiles at Clemson College on Dedication Day (Nov. 3, 1951) were impressed with the very large amount of modern textile machinery which has been recently installed and is now available to the students.

They had $200,000 for the purchase of textile machinery as the result of donations made by textile mills and textile goods selling agents but because of discounts allowed by builders, and some donations, acquired machinery which, at ordinary prices, would have cost almost $300,000.

The same situation existed at the School of Textiles at North Carolina State College which by a coincidence had exactly the same amount ($200,000) available for the purchase of textile machinery but that was furnished by the Legislature.

The North Carolina Textile Foundation, Inc., which includes in its membership every prominent textile manufacturer in North Carolina, uses its funds to provide salary supplements and thereby enable the School of Textiles to secure, as teachers, men who could not be secured at the regular college salary scale. They appropriate about $55,000 per year for salary supplements.

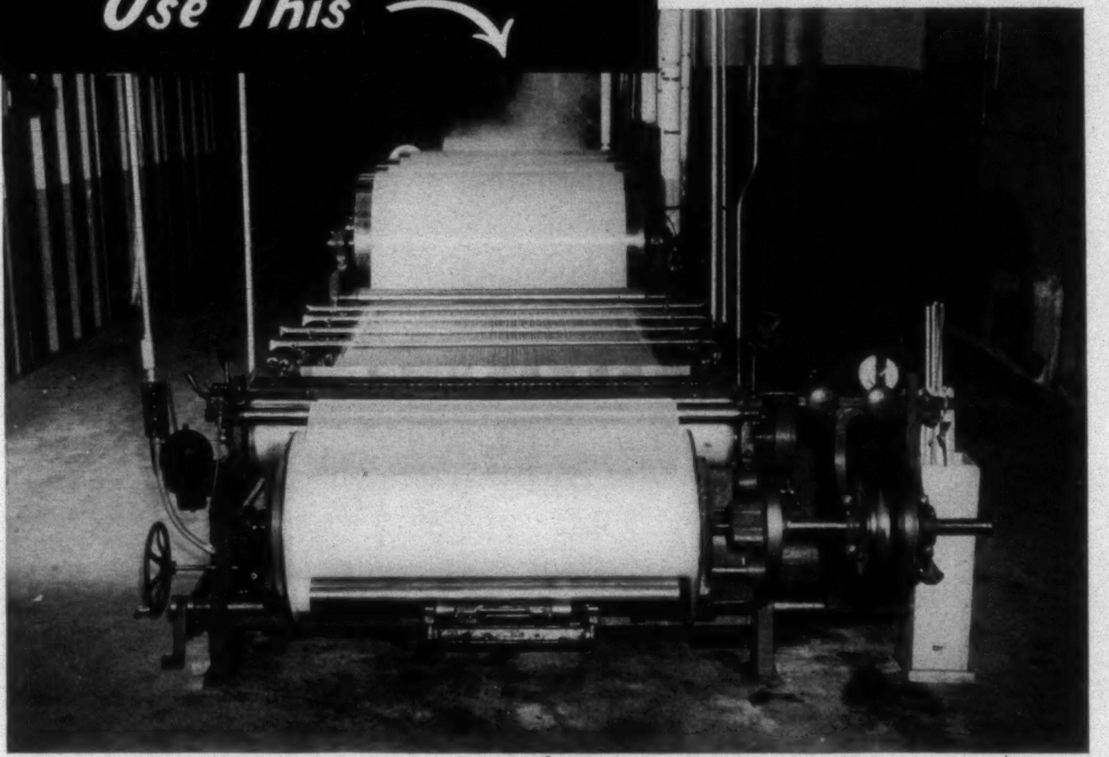
The mill men of North Carolina told members of the legislature that, if the mills provided the money to make it possible to secure good teachers, it was up to the state to provide funds for equipment, and although the legislature had just voted $700,000 for an enlargement of the building of the School of Textiles, they voted the $200,000 for additional textile machinery.

Both Clemson College and North Carolina State College now have excellent equipments of modern textile machinery for the instruction of students.

We do not know the exact situation at the School of Textiles at Georgia Tech but we do know that the textile manufacturers of Georgia are solidly behind that institution and that with their financial help, a considerable number of new and modern machines have been installed.

Only a few years ago the textile equipment at each of the

For Cotton and Rayon
Waverly Mills
Laurinburg,
North Carolina,
Use This



JOHNSON ALL-FIBER SLASHER

for warps of cotton, spun rayon, and various other man-made fibers.

Cotton, rayon, spun rayon, acetate, and other types of warps are being sized on these versatile machines by efficient mills who insist on quality and uniformity of production without breakdowns.

Write today for 16-page, 3-color catalog describing and illustrating the Johnson sizer in detail.

Charles B. Johnson

PATERSON, NEW JERSEY

New England and Canadian Representative: J. S. FALLOW & CO., New Bedford, Mass.
Southern Representative: LUCAS ASSOCIATES, INC., CHARLOTTE 1, N. C.

schools consisted of a very limited number of out-moded machines.

The recent additions of modern textile machines will enable the schools of textiles to give much improved instruction.

Smaller Cotton Crop

Knowing that many mill men had become very bearish on the price of cotton, we attempted in our October issue to give a picture of the real situation and cause them to modify their views.

The picture which we painted, and which showed that there could be an actual scarcity of cotton, is now much more impressive because the estimate of Nov. 8 was 15,771,000 bales, or 1,160,000 less than the Oct. 8 estimate.

Buyers of goods have undoubtedly been withholding orders in expectation of a lower price for cotton and will now have to pay prices reflecting the change in the cotton situation.

Should the 1952 cotton crop get off to a poor start and reflect a small crop next year, some real fireworks may be seen.

Everybody's Doing It

Some years ago there was an old refrain "Everybody's Doing It Now" and it seems to us that it should be revived as the Washington, D. C., song of today.

We do not believe that there has ever been as much corruption and graft among government officials as is being uncovered in Washington now.

Every few days there is news about public officials being connected with some new form of graft or racketeering.

White House stenographers get $8,000 mink coats, the chairmen of both political parties are accused of getting paid for using their influence to secure unjustified R.F.C. loans; an assistant Attorney General, a North Carolina man, admits going to Italy with all expenses paid by an Italian wine merchant who was trying to avoid paying some taxes.

Although we have always had faith in the agents of the U. S. Treasury Department, it appears now that not one but many of them have been, for a personal financial consideration, settling with taxpayers for amounts far less than that which they owed the government.

The situation at Washington stinks unto "High Heaven" and it seems to be a case of "Everybody's Doing It Now."

Sitting in the White House and giving his blessing to almost every Democratic Party politician, who is caught grafting or racketeering, is a man who tried to run a haberdashery store but lacked the ability to make it succeed—a man who never made any money until he became connected with the notorious Pendergast gang of Missouri.

Because he made himself a worthy member of that organization, they made him a small time judge and then a United States senator.

The Pendergast crowd undoubtedly had a part in his obtaining the nomination for vice-president and a death elevated him to President of the United States.

The personality of the head man, whether it be the United States or a small manufacturing corporation, is always to some extent reflected throughout the organization and it is significant that this wave of corruption, in official circles, has come when the head man is one who was formerly a member of the Pendergast gang.

In spite of all the graft and corruption which has been uncovered very few, of those guilty, are punished.

Perjury seems to be about the only crime which is punishable with a jail sentence.

TEXTILE INDUSTRY SCHEDULE

— 1951 —

Nov. 26-Dec. 1—EXPOSITION OF CHEMICAL INDUSTRIES, Grand Central Palace, New York City.

Nov. 29-30—SPINNER-BREEDER CONFERENCE, Clemson, S. C.

Nov. 30—Textile session (in conjunction with annual national meeting), **AMERICAN SOCIETY OF MECHANICAL ENGINEERS**, Chalfonte-Haddon Hall, Atlantic City, N. J.

Dec. 1—SOUTH CENTRAL SECTION, A.A.T.C.C., Hotel Patten, Chattanooga, Tenn.

Dec. 3—AMERICAN ASSOCIATION OF TEXTILE TECHNOLOGISTS, Builders Club, New York City.

Dec. 8—SOUTHEASTERN SECTION, A.A.T.C.C., LaGrange, Ga.

Dec. 13-14—Film, Sheeting and Coated Fabrics Division, **SOCIETY OF THE PLASTICS INDUSTRY**, Hotel Commodore, New York City.

— 1952 —

Jan. 14-17—PLANT MAINTENANCE SHOW, Convention Hall, Philadelphia, Pa.

Feb. 13-15—COTTON RESEARCH CLINIC, Pinehurst, N. C.

March 3-7—Spring meeting and committee week, **A.S.T.M.**, Hotel Statler, Cleveland, O.

April 3-4—Spring meeting, **TEXTILE QUALITY CONTROL ASSOCIATION**, A. French School of Textiles, Georgia Institute of Technology, Atlanta.

April 16-17—Spring meeting, **FIBER SOCIETY**, Clemson (S. C.) House Hotel.

April 16-18—Annual convention, **COTTON MANUFACTURERS ASSOCIATION OF GEORGIA**, Boca Raton (Fla.) Hotel and Club.

May 6-9—INTERNATIONAL LIGHTING EXPOSITION AND CONFERENCE, Cleveland (Ohio) Auditorium.

May 12-17—NATIONAL COTTON WEEK.

May 15-17—Annual outing, **CAROLINA YARN ASSOCIATION**, The Carolina, Pinehurst, N. C.

May 15-17—Annual convention, **AMERICAN COTTON MANUFACTURERS INSTITUTE**, Haddon Hall, Atlantic City, N. J.

June 12-14—Annual convention, **SOUTHERN TEXTILE ASSOCIATION**, Ocean Forest Hotel, Myrtle Beach, S. C.

June 23-27—Annual meeting, **AMERICAN SOCIETY FOR TESTING MATERIALS**, Hotel Statler, New York City.

Oct. 6-11—SOUTHERN TEXTILE EXPOSITION, Textile Hall, Greenville, S. C.

Nov. 6-8—Annual national convention, **AMERICAN ASSOCIATION OF TEXTILE CHEMISTS & COLORISTS**, Boston, Mass.

— 1953 —

Sept. 17-19—Annual national convention, **A.A.T.C.C.**, Stevens Hotel, Chicago, Ill.

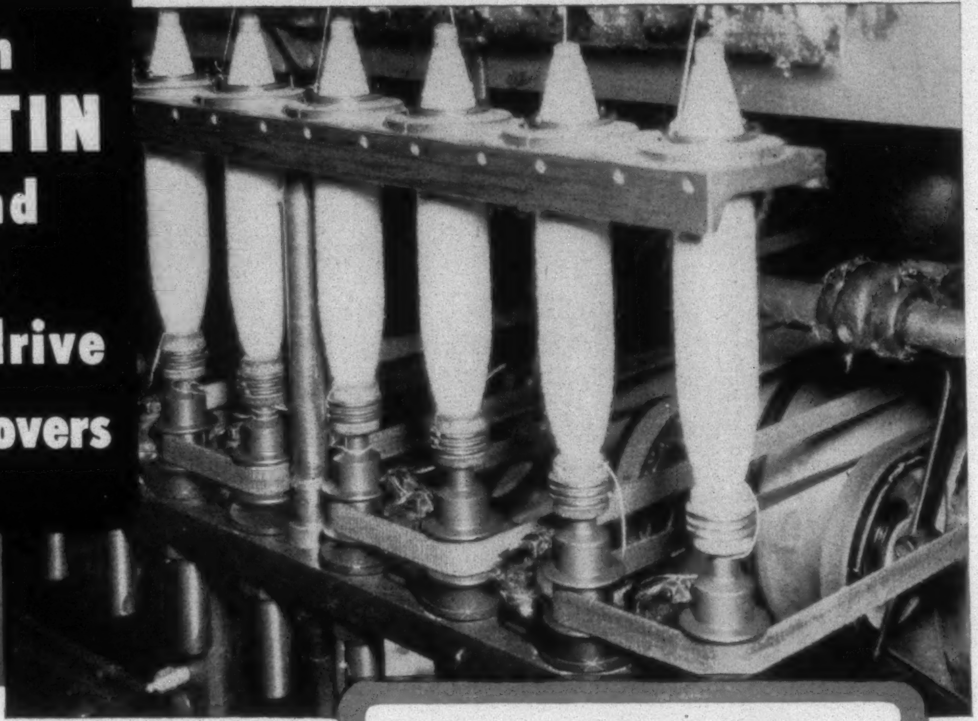
— 1954 —

April 26-May 1—AMERICAN TEXTILE MACHINERY EXHIBITION, Atlantic City (N. J.) Auditorium.

MODERNIZE

your band drive spinning frames . . .

with WHITIN band to tape drive changeovers



View showing spindles, tape tension pulleys and cylinders applied to a Whitin Model "A" spinning frame.

Is your mill one of the many still operating old band-driven spinning frames — frames that may still be structurally sound but admittedly non-competitive and inefficient by today's standards? Do you know that they can be modernized to make them competitive once again — and at a very moderate cost?

Whitin band to tape drive changeovers have been installed in many mills on various makes of frames and are paying big dividends in greater machine efficiency, better yarn quality and lower operating and maintenance costs. Our Repair Sales Departments in Whitinsville, Mass. and Charlotte, N. C. will be glad to furnish figures based on surveys of your particular requirements.

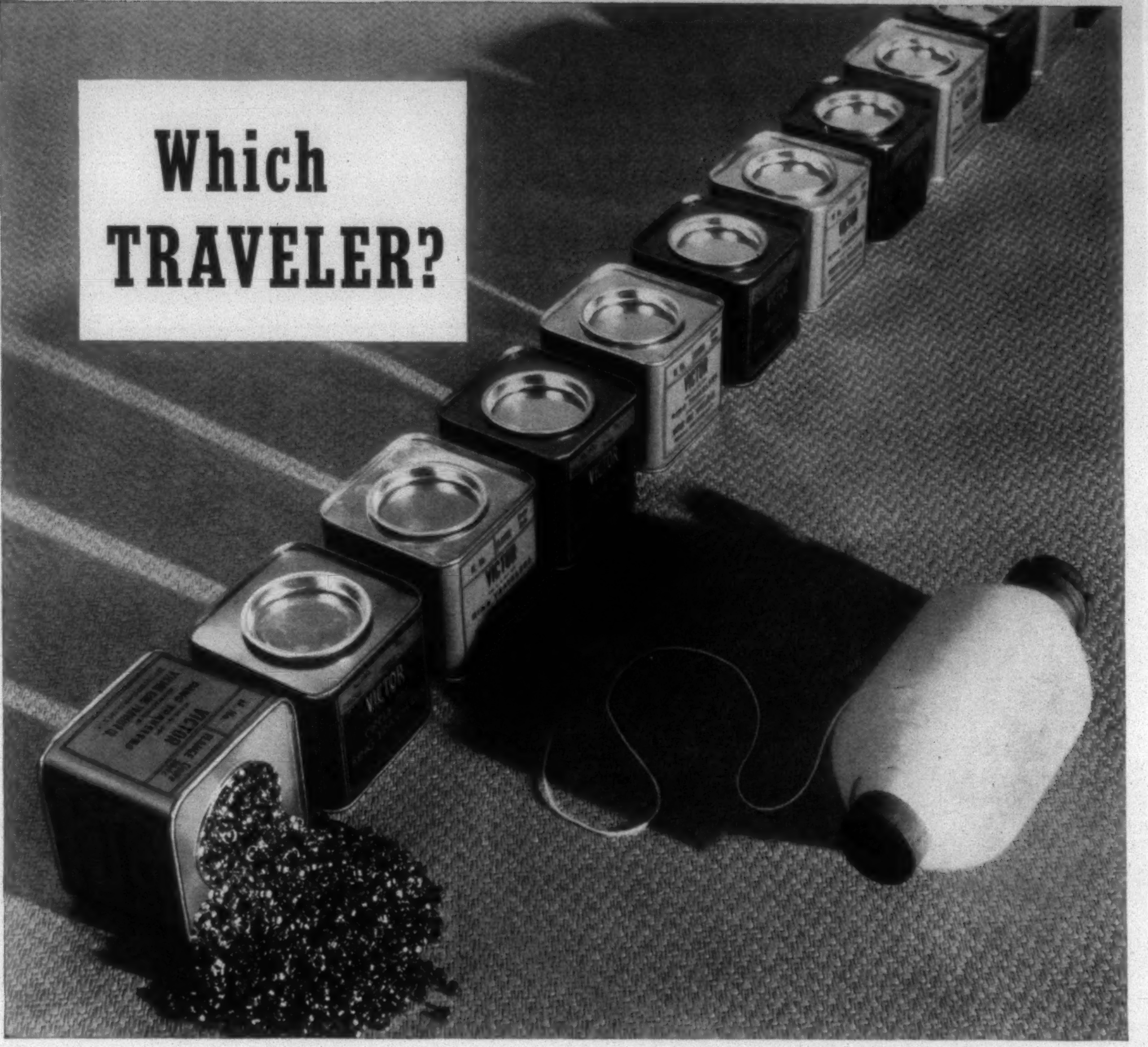
You benefit *9 WAYS* because you get—

- Improved yarn quality
- More even twist
- Increased breaking strength
- Lower maintenance costs
- Slower cylinder speeds
- Increased spindle speeds if desired
- Less noise and vibration
- Increased frame efficiency
- Modern machine engineering

Whitin MACHINE WORKS

WHITINSVILLE, MASSACHUSETTS
CHARLOTTE, N. C. • ATLANTA, GA. • SPARTANBURG, N. C. • DEXTER, ME.

Which TRAVELER?



NO two fibers run exactly alike. For example, a 20's synthetic or blend yarn requires a traveler of a different size and type than that used in running cotton yarn of the same number, for best results in spinning.

"Guesswork" and haphazard probing to find the right traveler uses up valuable time, puts you "on the spot".

If your ends down are excessive, if your quality and production are off, make the *one* smart move that has helped so many mills gain greater productivity. Talk over your trouble with a Victor Service Engineer.

Mill-trained, every Victor Service Engineer is a *specialist* in traveler applications, has often helped clear up the most puzzling spinning and twisting problems. Whether you are running conventional fibers, synthetics, or blends — he can often make other valuable suggestions for improving yarn quality and production.

Write, wire or phone our nearest Victor office for prompt, friendly service. There's no obligation.

•

Keep a Step ahead with

VICTOR Ring Travelers

VICTOR RING TRAVELER COMPANY

PROVIDENCE, R. I. . . . . 20 Mathewson St. . . . . Tel. Dexter 1-0737
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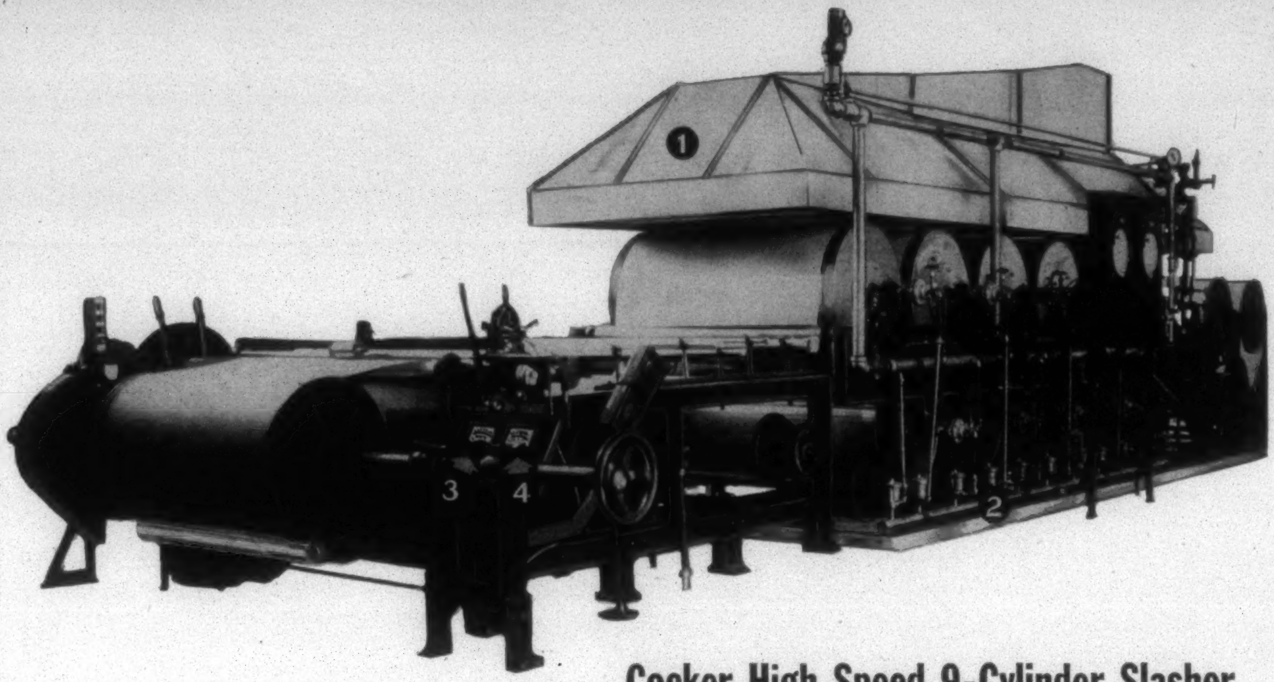
A Complete Slasher Installation by Cocker

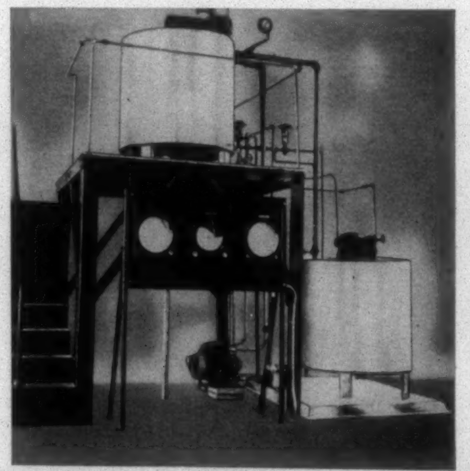


Cocker High Speed 9-Cylinder Slasher

For Cottons—Spuns—Filaments—and other yarns

- ❶ Stainless Steel Hood . . . by Cocker
- ❷ Stainless Steel Drip Pan . . . by Cocker
- ❸ Accurate Electric Stretch Indicator
- ❹ Accurate Electric Speed Indicator

We now have complete facilities for making complete size room installations . . . stainless steel cooking and storage kettles, stainless steel hoods, stainless steel drip pans . . . as well as modern high speed Cocker Slashers for cottons, spuns, filaments, and other yarns. Let us figure on the complete installation of everything in your slasher room.



Complete Cooking and Storage Kettle installation . . . mounted on all-metal Cocker-built tables.

THE LEADER AROUND THE WORLD

COCKER Machine and Foundry Co., Gastonia, N. C.

WORLD'S LARGEST DESIGNERS AND BUILDERS OF COMPLETE WARP PREPARATORY EQUIPMENT

Work, Not Magic

THIS nation's material wealth is built upon the vision and courage, the sweat and toil, hope and faith of our people. There has been no magic involved upon which we might again call to replenish our denuded coffers.

We can either advance upon the security of sound principles or we can plunge on to the precipice of disaster toward which we are now headed in the dangerous illusion that our wealth is inexhaustible—and can therefore be limitlessly shared with others.

It is argued that we must give boundlessly if we are to be insured allies in an emergency.

I reject this reasoning as an unwarranted calumny against well-tested friends of long standing. The survival of the free world is infinitely more dependent upon the maintenance of a strong, vigorous, healthy and independent America as a leavening influence than upon any financial aid which we might provide under our own existing stringencies.

The free world's one great hope for survival now rests upon the maintaining and preserving of our own strength. Continue to dissipate it and that one hope is dead.—*Gen. Douglas MacArthur* in an address at Boston, Mass.

Still Coming South

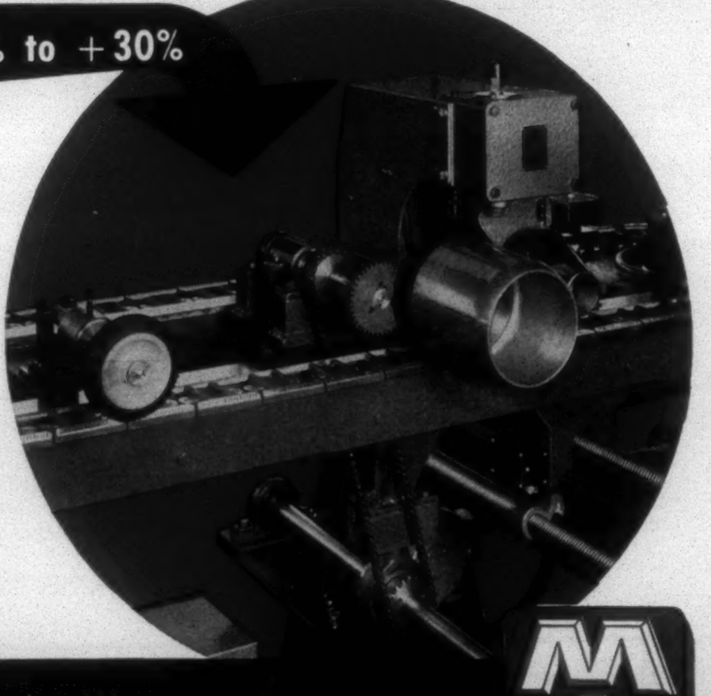
TEXTILE plant migrations from the East to the South continue despite protests from the communities that are losing them and the employees that are left behind. Within the recent past a large textile concern operating in New England announced that it would close the mill there and build three new ones in three Southern states—North Carolina, South Carolina and Tennessee. About the same time an upstate New York concern served notice of the coming transfer of its manufacturing plant operation to South Carolina.

A *New York Times* writer, commenting on these notices, says there does not appear to be much chance that these migrations can be halted. Textile executives tell him, he adds, that the movement "stems mainly from the need to bring technological improvements to the industry." That requires not only new spinning and weaving machinery, but new air conditioned plants with more efficient layout, to "stay in competition." Finally, the erection of the new plants in the region where their cotton raw material is grown permits savings in freight charges that have to be reckoned among the "cost factors." Also property taxes are lower in the South.

So, the *Times* writer reports, a fur-

*M&W *Positive Overfeed and Selvage Guider*

Uniform Overfeed from −5% to +30%



Regulates overfeeding positively and uniformly from —5% to +30% — for all fabrics, any finish, at speeds up to 100 yds. per minute. Simple — a turn of the wheel changes amount of overfeeding.

Pinning of each selvage on the tenter chain is adjustable, can be held within 1/16" tolerance.

Photo-electric cell engages selvage, *instantaneously* corrects sidewise variations — adjustable to react with equal efficiency to *all* shades and weights of fabric.

Guider arm brings cloth to meet the rails, not rails to meet the cloth — gains speed and accuracy by moving ounces of aluminum instead of hundreds of pounds of cast iron.

Manufactured exclusively in the U.S.A. under license from John Dalglish & Sons Limited of Thornliebank, Glasgow, Scotland.

*Attaches to practically all existing tenter frames (when equipped with M&W pin type tenter chains), easily transferred from one frame to another.

SEND FOR BULLETIN GIVING FULL DESCRIPTION

Marshall and Williams
Providence, R. I.

M & W

ther concentration of the textile industries in the South is expected by the Eastern textile interests. The economic and other advantages offered by the Southern locations alongside the cotton fields and other raw material sources are evident and compelling attractions which generate more pulling power with the industrial improvement and the speed-up of competition. — *The Times-Picayune,* New Orleans, La.

Mental Poverty

ONE morning a few days ago we stopped at the gate and swapped talk with several there. It is not long when in the presence of groups until the conversation will get around to conditions, taxes and hard times. Like politics, poverty and hard times has been a capital subject in all ages. We sooner or later will get around to the weather and times in our conversation.

Poverty, or the state of being poor, brings to our mind thoughts of penury and deficiency in our way of life.

There are not many poor people in this country, but there are many who think they are poor. They dwell too long on the things they want and cannot get and not the things they have and should enjoy. Poverty in their case becomes a state of mind.

In early colonial days people were poor who could not secure salt; salt was a factor in the War between the States. They had all the other necessary things of life to fill their needs, but could not get salt. Today it is one of our most plentious commodities.

In early days youngsters were considered poor who could not start their married life with a matched bedroom suit, dining table and chairs. In my grandmother's age the family that could own a parlor organ was always considered to be above the poverty line. Today we count ourselves poor if we cannot fill our homes with all the modern gadgets and ride in the latest model car besides.

We worry ourselves by looking about us, comparing ourselves with others and the things they have that we do not possess. This forms mental poverty pictures in our mind and blots out from our thinking a picture of the real things about us that we have and can enjoy.

Poverty is largely a state of mind. It consists in wanting something we cannot get; we usually resent our own degree of poverty. Our resentment is

PROCTOR

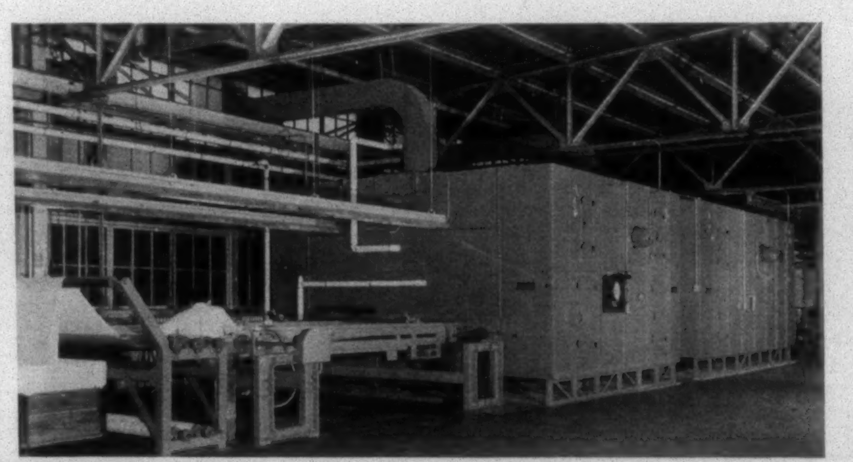
Nylon Setting Equipment

- **STABILIZATION UNDER 1%**
- **ASSURES UNIFORM SETTING . . .**
- **ELIMINATES SHADING . . .**

Nylon tricot fabrics that meet manufacturers' highest standards for dimensional stability and crease resistance are today being turned out in many mills throughout the country in modern Proctor nylon setting equipment. This equipment consists of two housings (enclosing a single wide tenter frame)—the first of which is a steam heat dryer for removing all moisture from the fabric. The second is a gas heated, high temperature machine providing temperatures in the 400 degree F. range and uniformity of air application to the fabric to provide uniform stabilization across the full width of the fabric. The internal air distribution system provides an absolute uniform impingement of air on both sides of the material and across the full width. By utilizing high velocity hot air, extremely efficient heat transfer is accomplished, thus permitting stabilization of the fabric under 1% residual shrinkage. This uniform heat setting eliminates shading of dyestuffs. The present standard range of equipment will accommodate either a 130" or 144" wide pin tenter. The same equipment may be designed for use with a 160" wide tenter frame. Proctor engineers are able to offer equipment for handling wide laces and net material on a 260" pin tenter frame. Where adequate tenter dryer is available—it is possible to purchase just the second or high temperature housing. Write for complete information.

For more information on Proctor equipment for the textile industry—see our catalog inserts in Textile World Catalogs and Davison's Textile Catalogs.

NOTICE: Much Proctor drying equipment and textile machinery is covered in full or in part by patents or patents pending.



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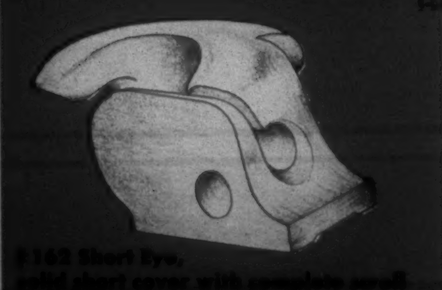


#162 Short Eye,
solid short cover with complete scroll

usually not actual need, but mental.

If we would raise our mental draw bridges we would all find enough to be happy over and we would find we are in that favored group, who are far from being poor.—*The Commentator*, Union Bleachery, Greenville, S. C.

Hastens Move South

OF SIGNIFICANT interest to Southern people is the statement that the recent drop in textile production has hastened the movement of the industry from the North to the South.

Textile men, not individually identified, are quoted in a *New York Times* article as making this assertion and they are further quoted as saying that despite bitter protests of textile workers unions, chambers of commerce and industrial commissions "there does not appear to be much chance that the migration of the spinning and weaving plants can be halted."

A number of instances of recent decisions of textile companies to locate new plants in the South are cited by the writer of the article. The textile concerns of the North, it is pointed out, are realizing the need for complete rehabilitation of their plants, with more modern machinery and equipment to remain competitive, and for the most part these changes require new buildings.

Faced with this need to build virtually new plants outright, these manufacturers are deciding, in numerous instances, to build them in the South.

This decision is based on economic grounds. One factor is that by placing their plants in the region where cotton is grown a saving can be effected in the freight costs of the raw materials. But even more important, it is stated, is the cost savings in property taxes and somewhat lesser savings in heating costs in Winter time.

The textile men admit that these factors of overhead are not too important when a mill is operating at full capacity, but point out that "when the going gets rough and production is curtailed, overhead charges loom large in the operating statement."

This explanation comes as another illustration of the basic economic advantages which the South offers, in comparison with other regions, for various forms of business enterprise.

It has been increasingly recognized that the milder climate, longer growing season and usually abundant rainfall in this region gives a distinct advantage to Southern agriculture, especially in the field of livestock farming, in the matter of costs. With the same efficiency in processes and methods, costs of production in the South can usually be brought materially lower than in Mid-western grain and livestock areas. And now it is being more widely realized that manufacturing enterprises can find similar advantages in this region and are taking advantage of it to locate their new, modern plants here.

And as competition becomes keener, these advantages are the more highly prized. The facts suggest the conclusion that as times return to a more nearly "normal" state, we may expect the industrial, as well as agricultural, growth of the South to be further accelerated.—*Greenville* (S.C.) *News.*

Moral For Humans

THE animal kingdom continues to furnish illustrations of how quick and easy it is to become disastrously dependent in a welfare state.

Not long ago, it was the St. Augustine seagulls that relied so completely for food upon dead fish and other refuse thrown away by shrimping boats that they almost lost the art of fending for themselves. When the shrimpers moved to other localities, eliminating free meals for the birds, the hungry gulls practically starved to death before they decided that, after all, it might be possible for them to obtain food in the age-old manner.

Now come the bears of Yellowstone National Park, which have reached the stage where they figure the world owes them a living. Tourists have so pampered them with hand-outs that the creatures are no longer willing to scrounge for berries and roots. They not only prefer such delicacies as candy bars and sandwiches, they demand them as their rights.

When visitors forget to include the bears in plans for lunch and refuse to come across, the bruins become obstreperous. They wave their paws angrily and have even clawed a few tourists. As a result, park custodians have found it necessary to shoot 20-odd bears this year as public menaces.

If they had been Florida bears, the government likely would have sent in-

Stehedco *and*
Southern

SOUTHERN...

THE HALLMARK OF "THE WORLD'S FINEST SHUTTLE"!

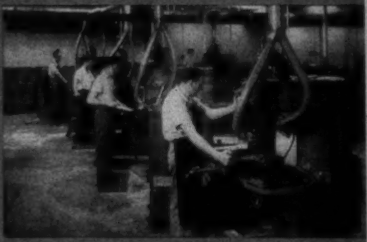
To withstand the violent, numerous impacts produced by modern high speed looms, a shuttle must be rugged, yet consideration must be accorded the finest precision required in the unerring transmission of the most delicate threads used. *Southern* researchers, designers, development engineers and master craftsmen, working in one of the largest single unit shuttle plants in the world, *(100,000 sq. feet of modern dust and humidity controlled, air conditioned plant with the latest equipment)*, are responsible for initiating every major improvement in this, the most highly developed shuttle used in modern mills today.

Southern—Quality begins with the selection of raw materials and *Southern*'s own sawmills control this selection. Its vast factory and warehouses are always assured the pick of the world's finest shuttle materials. The scientific control of the drying process known as *Tempering* developed by *Southern* engineers, still remains a secret.

Southern has also applied its scientific materials selection, design, and manufacturing techniques to developing the foremost line of eye types for the most difficult yarns and fabrics. Controlled from their own foundry through their own patented machining process.

Southern tips, eyes, and grips when assembled into Tempered Dogwood blocks, produce the shuttle required for today's high speed looms and it is these shuttles that have earned for *Southern*, the title . . . "Scientific Shuttlemakers."

Billet flanked high speed moulding machines


Battery of routers forming profile cuts and intricate indentations

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A section of final assembly

One corner of Eye Department

Standard S-6 C&K Loom Shuttle for 7⅜" Quill

#800 Rear Tension
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QUALITY SHUTTLES

vestigators down from Washington to make sure they didn't have a supply of berries cached away or maybe a honey tree unreported. If no proof could be found that the bears retain a bit of native enterprise, the free lunches would continue.

The moral of these little stories is, of course, that the power to give also entails the power to take away. It doesn't pay to grow too dependent upon hand-outs from any source that may be removed without notice.—*Florida Times-Union,* Jacksonville, Fla.

Quiet Spending

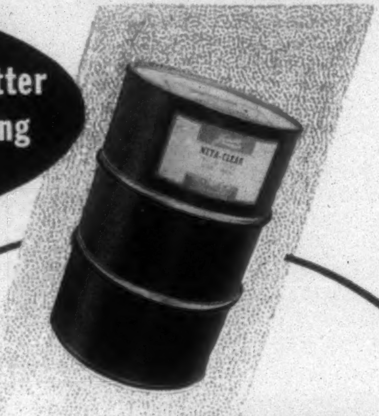
SOME people are under the impression that the way to put our government spending on a pay-as-we-go basis is to raise the taxes of just those in the upper brackets. In other words, "soak the rich." Let's examine that theory for a moment to find out why it wouldn't work. Individual income taxes have been raised so that those in the top bracket are now paying rates up to 91 per cent on what they earn. Now, there are mighty few in that bracket and they're being taxed to the hilt. As a matter of fact, if the government took away every cent earned by everybody in the 25,000 dollar bracket, it would only add about five billion dollars to present tax revenue. This, of course, would fall far short of balancing the proposed 7½ billion dollar budget and the damage it would do to our economy would be beyond calculation. No, "soak the rich" is not the answer to our government spending problem. We must balance the federal budget by cutting all non-essential expenditures, eliminating waste and adopting sound tax policies in which all pay their fair share. — *Mooresville Medallion,* Mooresville (N. C.) Mills, Inc.

Y.M.C.A. & Industry

THE rapid industrialization of the South has brought forcefully to the attention of Southern management and labor, the important role played by the Young Men's Christian Association in dealing with human relations in industry. Since the "Y" has gone quietly about its job—self-appointed—of promoting better human relations in *all* levels of industry, public journals have not devoted much space to the "Y's" activities in this field, which in view of 106 years' experience are formidable to say the least.

It is not extraordinary that the "Y" should have such large experience in promoting better labor-management relations, for in effect that is how the "Y" got started. A group of clerks in a London drapery store, back in 1844, decided to found an organization for their mutual development and improvement. From the beginning they called themselves the Young Men's Christian Association. So successful was the original group that the idea was soon propagated in other London firms. In 1851 the idea spread to America via travelers returning from the London Exposition of that year. This year, in fact, is the 100th anniversary of the first "Y" in this country, which was established in Boston.

Some people, presumably because of the "Y's" notable success with athletic programs, think of it only in terms of a community bulwark against delin-


The Biggest Cost Cutter in Machinery Cleaning Today

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META-CLEAN

Jarrett's META-CLEAN is made expressly for cleaning hosiery and other textile machinery and machine parts. It does the job simpler, faster, and better than any other cleaner known . . . penetrates and saponifies grease, oil, dirt, and lint almost instantly. Jarrett's META-CLEAN saves hours and hours of cleaning labor and machine down-time.

Jarrett's META-CLEAN has none of the disadvantages of other widely used cleaners. It is non-inflammable, gives off no eye-smarting and lung-irritating odors, and soothes skin and hands instead of irritating them. It can be sprayed, brushed or wiped on, or for immersion of small parts . . . and is effective even when diluted 20 to 1 with water. Write for a sample or a trial order.

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Manufacturer and Distributor of Chemicals and Supplies, Newton, N. C.

Rayon Reports

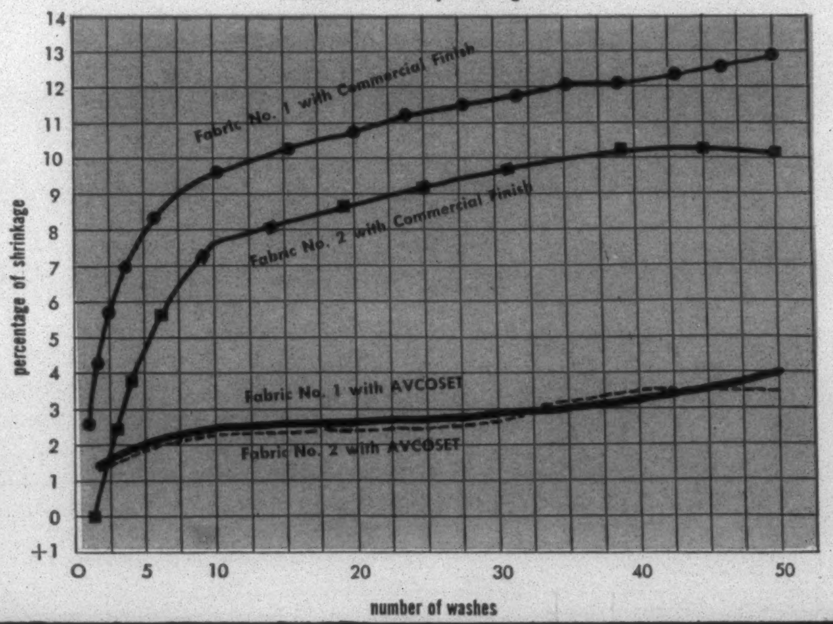
repared Monthly by American Viscose Corporation, New York, N. Y. November, 1951

Industry-Wide Interest Reported for Avcoset*

NEW STABILIZING PROCESS ACHIEVES SHRINKAGE CONTROL FOR RAYON

The recent Avisco announcement of the achievement of permanent shrinkage control for rayon has produced an extremely favorable reaction in the field. The news that Avcoset eliminates progressive shrinkage through 50 washings has caused particularly enthusiastic comment—as has the lack of chlorine retention and subsequent immunity to bleaching agents.

Results of Wash Test— Comparing* AVCOSET *with a Commercial Process
Two 100% Viscose Rayon shirting fabrics



It is emphasized that Avcoset is a cellulose finish for a cellulose fiber. Intended primarily for shirting weight fabrics, the new process affects only viscose. However, it can be successfully applied to fabrics combining rayon with percentages of nylon, acetate or other fibers.

The new process is the result of more than two years' laboratory evaluation by Avisco's Textile Research Department. It has already been utilized on a commercial scale—and is ready for adoption by all those in the industry alert to improving rayon textiles. Inquiries about the Avcoset process are welcomed. Address: American Viscose Corporation, Converting Relations Department, 350 Fifth Avenue, New York 1, N. Y.

*Reg. Trade Mark

RAYON 20 YEARS AGO

New York, N.Y., November, 1931 —More than 68,000 yards of rayon fabric were used in decorating the newly-opened Waldorf-Astoria.

Calcutta, India, November, 1931 —Rayon imports into India have greatly increased in the past few months.

New York, N.Y., November, 1931 —The National Retail Dry Goods Association has passed a resolution protesting the weighting of rayon fabrics.

MAKE USE OF *Avisco*® 4-PLY SERVICE

To encourage continued improvement in rayon fabrics, American Viscose Corporation conducts research and offers technical service in these fields:

1 **FIBER RESEARCH**
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4 **FABRIC FINISHING**

AMERICAN VISCOSE CORPORATION

America's largest producer of rayon

Sales Offices: 350 Fifth Avenue, New York 1, N. Y.; Charlotte, N. C.; Cleveland, Ohio; Philadelphia, Pa.; Providence, R. I.

quency. Just as important to the "Y" —and those whom the "Y" helped to help themselves—are the industrial services performed in the proverbial *new* South. There has been an area-wide Y.M.C.A. industrial service committee and industrial Y.M.C.A. secretary since 1943 giving full time to helping develop industrial programs and working with management and labor.

Earlier this year, a group of representative industrialists met in Biloxi, Miss., for the Seventh Annual Gulf States Industrial Conference, to discuss such matters as: "Getting the Most from Labor," "Morale and Productivity" and "Small Business and Its Manpower." This marks the seventh year for the group. In its fourth year the Kentucky-Tennessee-Ohio Valley-Employee-Relations Conference has set high standards for extending the areas of agreement in labor-management problems.

However, the "Y" enacts no legislation and passes no resolutions, rather it brings people together in an atmosphere, where the solution to their problems can be worked out by themselves. The "Y" sees that optimum conditions exist in these meetings and in this respect the "Y" acts as a catalyst. The "Y's" role, then, in industrial relations has been far from "do-nothing."

Popular on the local level are "Y" one-day institutes on "human relations" which are conducted in 30 cities in co-operation with businessmen. They are similar in scope to the regional conference.

The past decade marked the rapid industrialization of the South, and the "Y" has expanded its industrial services to the point where there are now 74 Southern units conducting human relations programs with industry. The "Y" has especially focused its attention on the problems of small businessmen who do not have personnel managers and labor relations experts.

There are now 1,100 Southern firms participating in these Y.M.C.A. programs. This century-long experience in helping people get together and plan their own welfare has been simply—but effectively—applied to industrial relations. Such programs are financed through corporate contributions from industry and businesses which supplement the Y.M.C.A. projects.

The programs which the "Y" sponsors are remarkably wide in coverage. There are 26 industrial management clubs for supervisors, foremen, and management personnel. The role of the "Ys" more or less old standby, athletics, has not diminished; there are 55 cities with "Y"-sponsored athletic activities in the new South which supplement the work in industrial services.

The Southern area Y.M.C.A. industrial services committee, whose chairman is M. A. Abernathy of the United Gas Pipe Line Company, Shreveport, La., works with all cross-sections of Southern industry. Mr. Abernathy has served in that capacity since 1943. M. E. Mischler, who is the area Y.M.C.A. secretary, co-ordinates these industrial services from his headquarters in Atlanta.

The Y.M.C.A.'s years of human-relations experience is anyone's for the asking and you will find a time-tested proven effective program — rooted deeply in practical everyday Christianity.—*L. R. Robbins,* Westinghouse Electric Corp., Atlanta, Ga.

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Less Bearing Wear
Means Better Carding

Oils that drip and leak can't stay in bearings and will not protect the close and accurate adjustment of bearings so essential to perfect carding. Drip-less, waste-less NON-FLUID OIL stays in bearings keeping them cool and free from wear.

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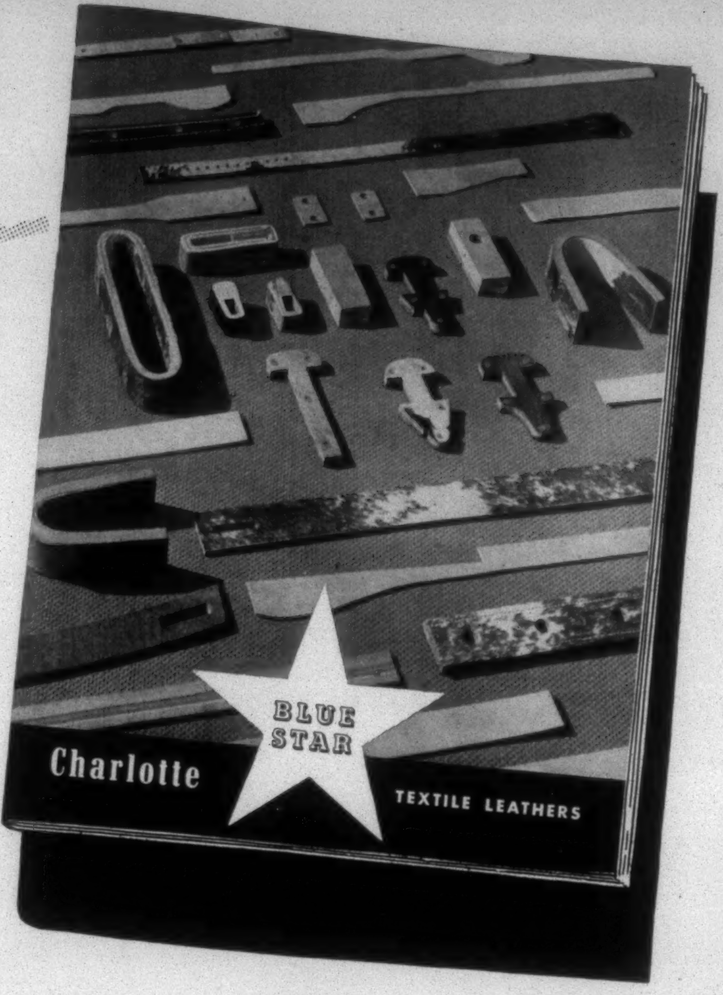
***NON-FLUID OIL** is not the name of a general class of lubricants, but is a specific product of our manufacture. So-called grease imitations of NON-FLUID OIL often prove dangerous and costly to use.*



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Charlotte Blue Star Textile Leathers have served many of America's leading mills since 1894. Constant product development and improved manufacturing methods have always kept them ahead in efficient performance, long life and lowest end cost. This new booklet illustrates and describes the complete line. A copy should be in your hands. The coupon below will bring it to you promptly, without cost or obligation. Fill out and mail it . . . *now!*

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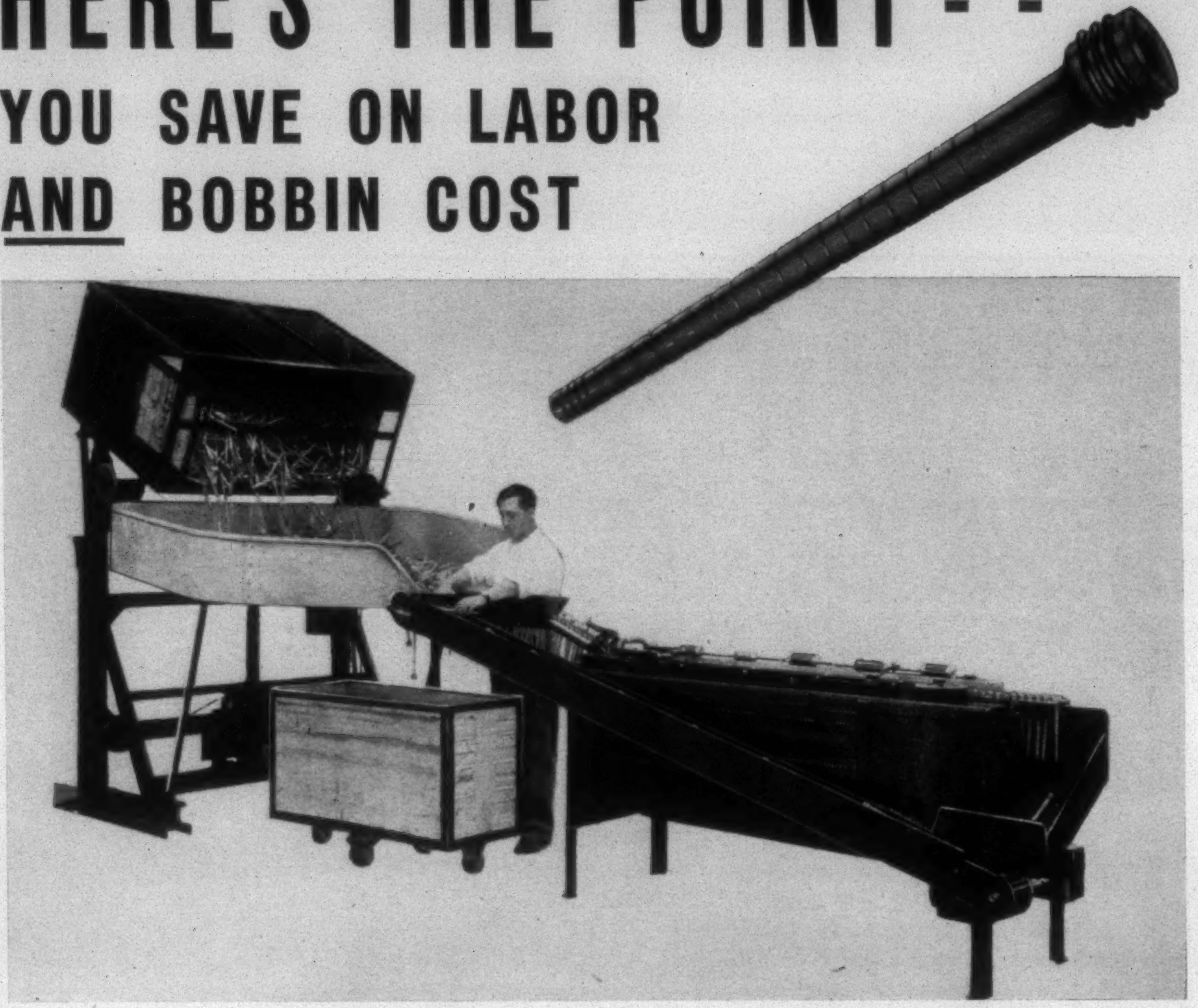

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Terrell's fast, efficient Type L machine introduces *a new saving* in modern bobbin cleaning—longer life for bobbins.

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Labor saving advantages of the Type L have been proved in mills throughout the industry—speed 90 to 140 quills per minute—easily, safely, operated even by low-skilled employees—quickly adjustable to a wide variety of designs and sizes. Bobbin handling problems of every variety are mastered by Terrell conveying equipment.

Why not talk to a Terrell engineer about your bobbin cleaning problems?

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We are proud of the all-time alkali production records made by Westvaco plants in this year of unprecedented difficulties. We believe they will continue to make delivery as promised — both as to quality and quantity.

A continuing program of additions and improvements will provide additional Westvaco alkali tonnage into 1952. We seek new customers whom we can serve efficiently and economically by virtue of our barge, rail and tank-truck service from various Westvaco plants.

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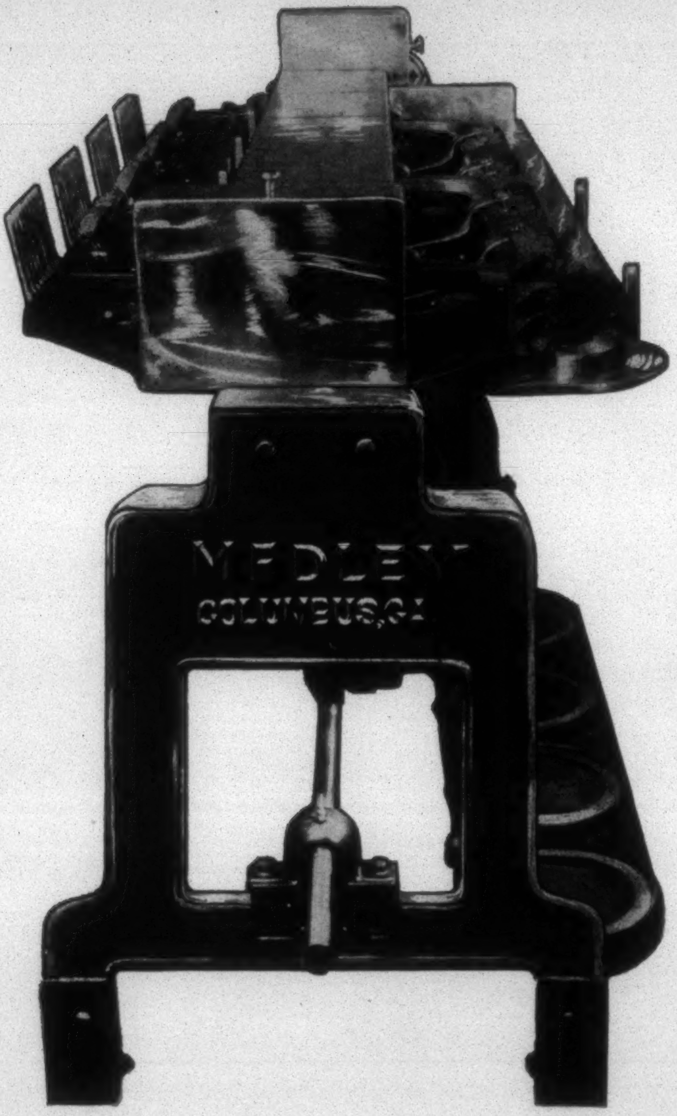
DOES POOR QUALITY SELL IN POOR TIMES?



This is hardly a fair question because the answer is obviously a big loud NO. Many mill men, however, act as if this were not so. During times of mill inactivity they are inclined to postpone needed repairs and give their sales department two strikes before they come to bat.

Why not keep your quality up to snuff by letting MEDLEY check on your drawing — the place where quality is made or destroyed.

Remember that — ONCE NON-UNIFORMITY IS PUT INTO SLIVER, IT IS THERE TO INCREASE WITH PROCESSING.

Let our representative check your drawing

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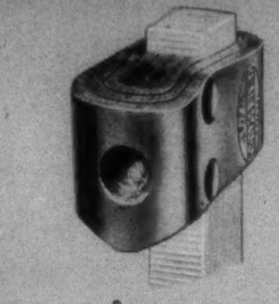
Follow-thru with Leather

Cut Shuttle Cost, Stop Kinky Filling Increase Profits with Graton & Knight TEXTILE LEATHERS

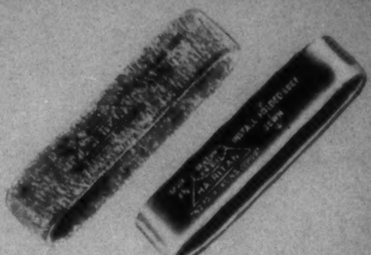
Graton & Knight Textile Leathers present an opportunity for mill men everywhere to secure the many benefits which only leather can give. The line includes 25 important types for Draper Looms; 33 for Crompton & Knowles Looms. Each is an *engineered* product, it's quality controlled from green hide to the finished part: accurate — dependable — economical.

* * *

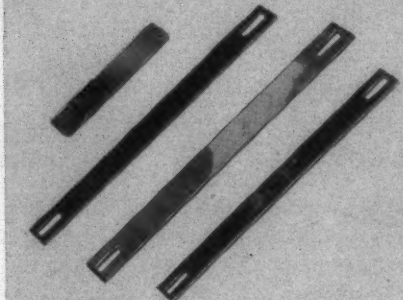
Be sure to see the G&K-DIXIE salesman, who has the complete story of why it will pay you to *Follow-thru* with the famous G&K-DIXIE Orange Line Loom Leathers and G&K Aprons and Tapes.



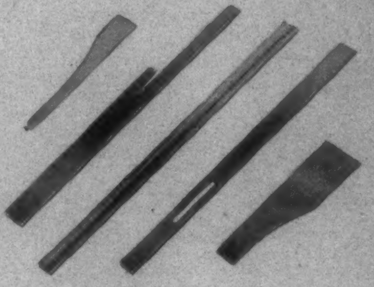
Pickmaster® Pickers do not bounce the shuttle, or cause the shuttle spur to heat up. Promote smooth shuttle flight and accurate boxing.



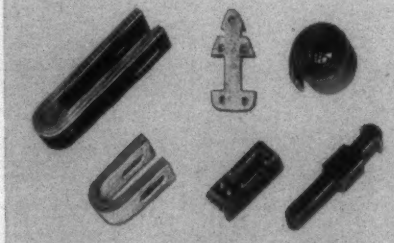
Endless Check Straps provide *controlled* cushioning action for the picker stick. They are positioned perfectly for each pick, and conform to the angle of the picker stick at all points.



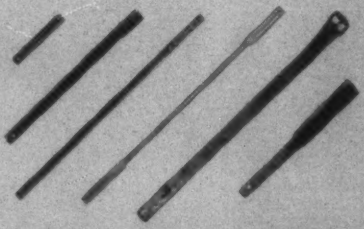
Straight Check Straps with low permanent stretch and high resiliency promote smooth shuttle throw. Built to flex uniformly and outlive ordinary straight check straps.



Boxmaster Binder and Box Plate Leathers of special HAIRITAN® Leather with smooth, catch-free edges and deep, velvety surface. Need no waxes or fillers — do not "bleed" and discolor the filling yarn.



Lug Straps, Lug Hold-up Straps. Tough and resilient, these leathers are built to stand up to gruelling punching and whipping every second for longer periods than you imagine possible.



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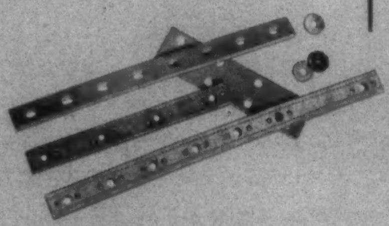

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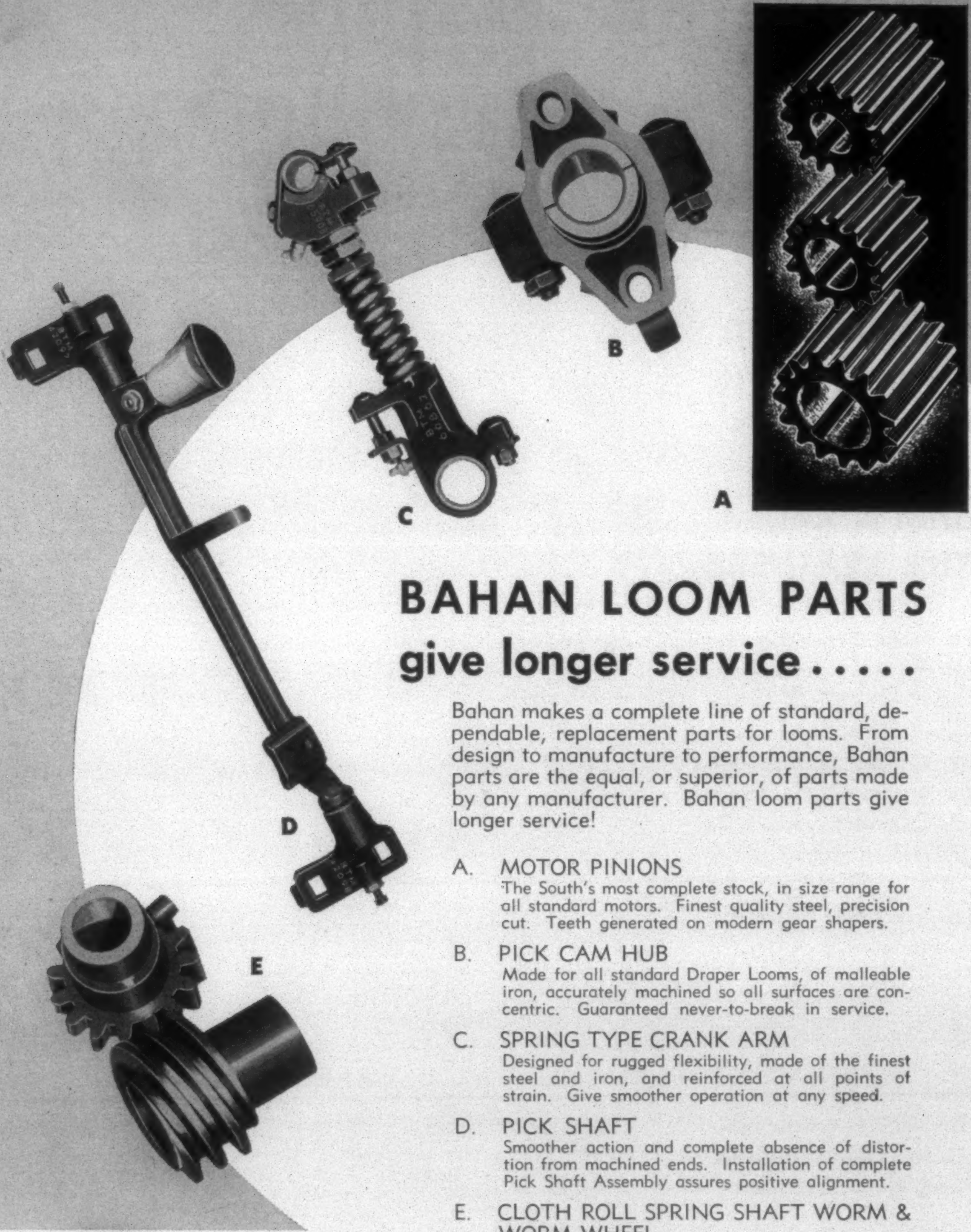

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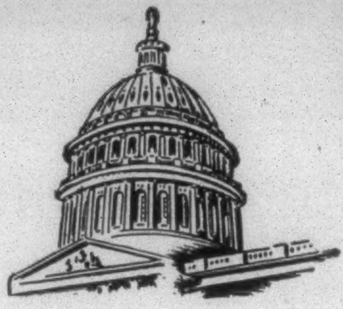

WATCHING WASHINGTON

[Exclusive and Timely News from the Nation's Capital]

Sale of jobs by A.F.L. unions at the Aiken bomb plant may turn out to be one of the smelliest of Truman scandals. Under Truman's union alliances, the unions have had a free hand in regimenting Aiken workers. Aggregate "fees" to join unions as prerequisite to jobs, even at common labor, are already shown to have reached $1.5 million. Some workers were fired within three days after paying $100 to $200 to be hired, and lost their money.

Several times it has been stated that a prime reason of the Administration in selecting Aiken as a plant site was to drive a wedge into Southern wage scales. Intent is described as being to force up all Southern wages, and wipe out the so-called "differential," through payment of unduly high wages at this government plant.

While A.F.L. has ended joint action with C.I.O. on the top policy level by breaking up the United Policy Committee, it is not called an open break. Yet the two groups are probably farther apart than they have ever been. A.F.L. says it wants "organic unity," which C.I.O. says means "swallowing us alive."

While Green has been re-elected A.F.L. president, and continues on the job, his duties from now on will be less than nominal. Realistic-minded George Meany is actually at the helm. He is much more of a match for the rugged and turgid John L. Lewis and wily and elusive Philip Murray in everything except bloc politics and deal making. Unlike Green, he knows that the strangling repetition of strike epidemics after the war simply cut labor's own throat, and produced the Taft-Hartley Law by public demand and pressure.

Philip Murray will continue on indefinitely as head of C.I.O., unless there is a sudden "palace revolution" that throws him out. He knows, and so does Truman, that the internal wrangling and soaring ambitions of other C.I.O. leaders can wreck its structure.

Mobilizer Wilson is trying to move in on Wage Stabilization Board's domain to lay down important new rules to handle labor disputes, and to tighten up against a new dizzy round of wage increases. It is likely this is only a pious hope, and that W.S.B., under Truman inspiration, will continue to be the real manpower agency, and move independently right down the road of trying to solve labor shortages by manipulation of wage rates.

In manpower issues, N.L.R.B. is moving over as far as possible to the side of the road, and allowing W.S.B. to take full sway. N.L.R.B. is reserving its jurisdiction to "rare and unusual cases" of policy, and delegating all it can to its regional boards. Since the regional boards can be used in practically every instance, N.L.R.B. is quietly stepping aside for the duration.

Federal bureaucracy is reaching out for control of industrial accident prevention, and for maintaining "safe and healthful conditions of employment" in industry. Administration stalwart Senator Humphrey (D., Minn.) brought in a bill (S. 2325) in the closing hours of the session to create a bureau of accident prevention within the Labor Department. Under it, the Secretary of Labor would be given almost unlimited power in this field, and the government would take over the orderly processes which the states exercise now under their own laws.

Basic fact about the Humphrey bill is that the government would take over workmen's compensation insurance and similar state functions. It's pointed out there's only one short step between control of accident prevention, and control of every collateral thing that relates to "safe and healthful conditions," with bureaucrats writing the definition of what is "safe and healthful."

Some senators see in the Humphrey bill a move to set up a federal bureau in the union-dominated Department of Labor with power of life or death over any company or enterprise. Inspectors would most certainly be drawn from union ranks, and able to lay a heavy hand on the orderly processes of state-administered accident prevention, or even to compel surrender of a company to union bosses.

The worst is yet to come in the tax scandals, say investigators, and more heads will roll as the next session digs into the malodorous muck of corruption. It is reaching into the Department of Justice and may hit some top assistants who have doled out protection to tax evaders. No one knows yet how deeply spread is the corruption, or how far it has gone in buttering up officials, filling party war chests, and handing out favors to party chieftains.

Truman and the tax leaders in Congress are heading straight toward a crash early in the next session over more taxes. Truman does not agree that taxes have been raised as high as the economy will stand -- he's leaning on the advice of his New Deal economists and labor allies who have strongly held to "share the wealth" theories. It is barely possible now that the next session will start reducing taxes.

The economic control law for mobilization is fitting fairly tight except for the big flaw made by Truman in nullifying the law's provision of equal application to prices and wages. New session is not expected to tighten the law. Opening it, even for minor changes, would start a time-consuming fight, and Truman would probably lose more than he would gain.

Truman is using his favorite "give 'em hell" oratory to denounce the "weakened" price control law. He says "special interests" are "ganged up" for profit, but has not mentioned that

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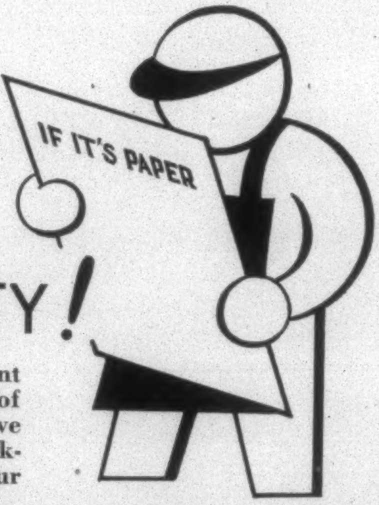

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1926 *Twenty-five Years of Service and Experience* 1951 at the start he had a strong dual wage-price control law, which the union bosses resisted, and he refused to use.

A.F.L. leaders and the Farm Bureau Federation and National Grange have split so far apart on price and wage controls that there's no prospect of peace. The unions want strong price controls on foodstuffs, and the farmers do not. In the past each one has sought to bend the national economy to its own ends. Now, with defense production, inflation and higher taxes, neither has what it wants.

Slowly but certainly, under pressure of New Deal-minded legislators, a new share-the-wealth concept is taking root within the framework of economic controls. It pivots on distribution of materials -- taking from the big and giving to the little without heed of actual need. Big companies are being compelled, under materials contracts, to agree to divide, or sell certain output, to independents and little business. It's the government's way of building up small competitors without use of new capital investment.

Eisenhower supporters privately implored him to make some kind of declaration of political affiliation and intention. Some of them frantically urged him to throw in his hat. Truman's part in it is not clear, but Eisenhower is generally accepted as his candidate.

Taft upset the applecart to "draft Eisenhower" by loudly proclaiming his own candidacy and starting a sizzling country-wide attack on Truman scandals and blunders. Truman is chafing under the attacks; at the same time there are no answers to Taft. Truman supporters, who want to win at any price, are showing unrest. Some of them would like to dump Truman, and start shouting for Eisenhower.

There will be more pressure in the new Congress for big spending, which may cause another collapse of the drive for economy. Big spending is chiefly in the Senate. In the last session the Senate increased total amounts of five in each six spending bills that came from the House. In 11 years from 1940 to 1951, the Senate has increased spending bills over House totals by $18 billion.

A new loan of $3 billion is being made ready for Great Britain, based on realization of Churchill's troubles. He's inherited the problems of six years of Socialism, and has three alternatives: induce the people to work harder and produce more; force lower standards of living, and bring on another election soon; or ask the U. S. for more aid and subsidies. If he decides on the latter, and fails, his government is expected to fall.

Private economists are pointing to the British experience as proving that the higher taxes go, the greater is the load of welfare state benefits to be carried. Growing taxes, they say, expand the number of people who must depend in part or in whole on government gratuities, and invariably leading to more inflation. Ultimately, they say, there's a level where high taxes do not combat inflation, but encourage it.

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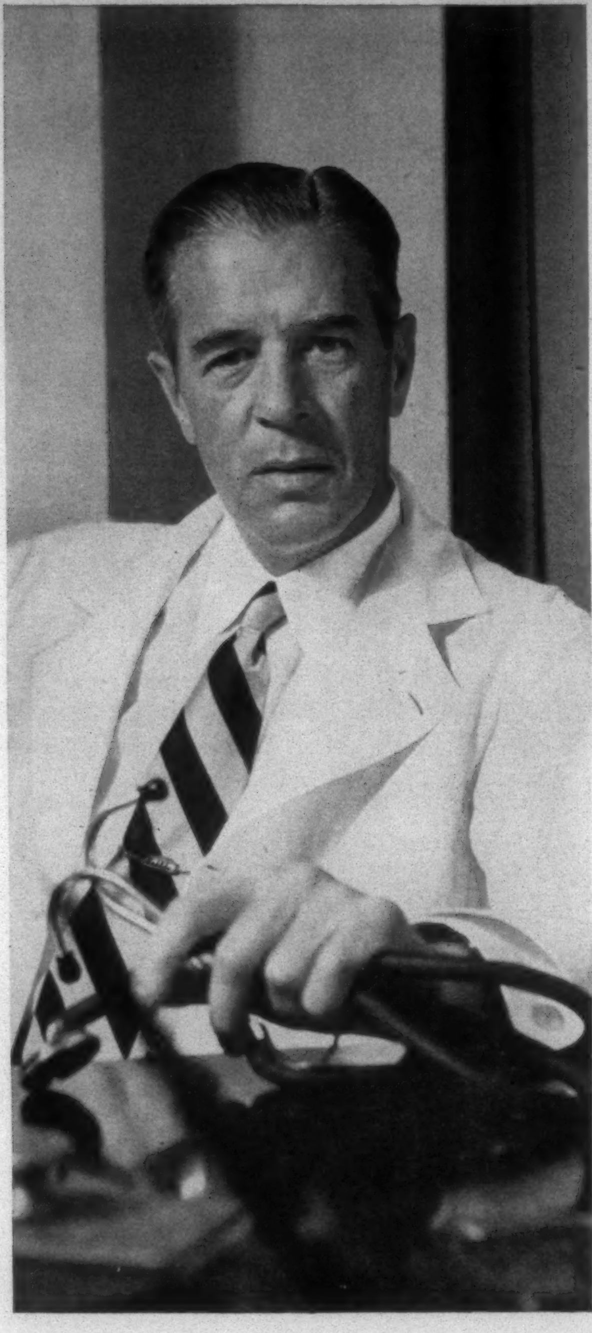

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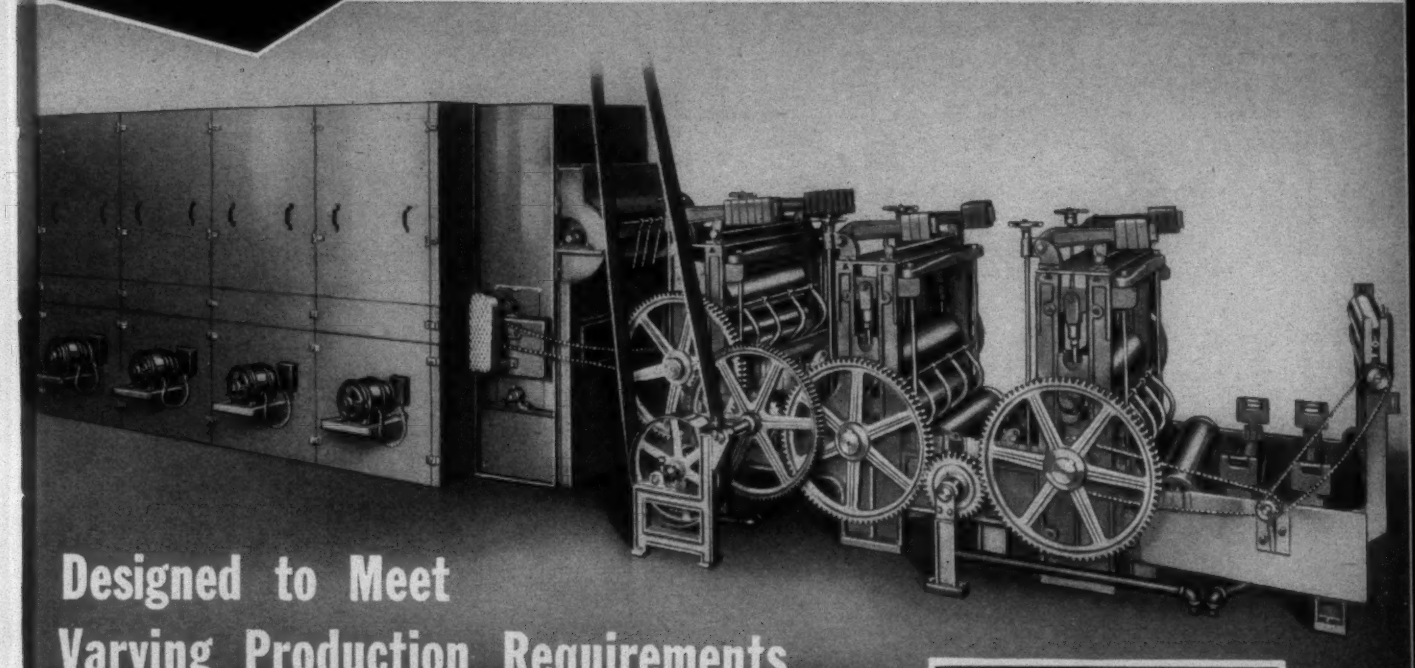

BACKWASHER—Available with one to five bowls. 44″ wide bowls give increased liquor capacity. SARGENT'S rearrangement of top squeeze roll levers allows easy accessibility for operator; permits more than double usual number of ends to run through machine. Convenient working space provided by development of pneumatic loading for squeeze rolls, eliminates weights, rods, springs and adjusting wheels.

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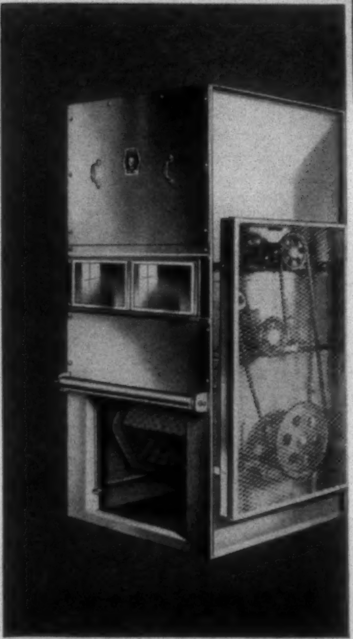

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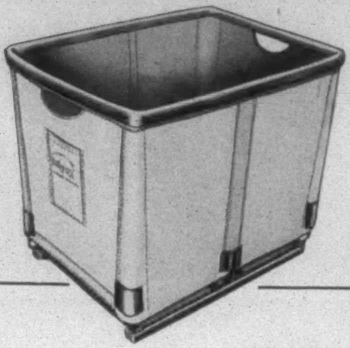

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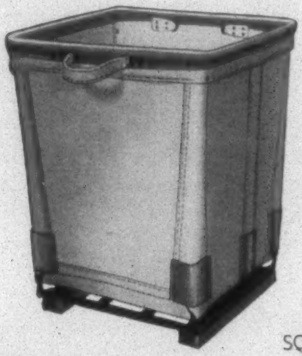

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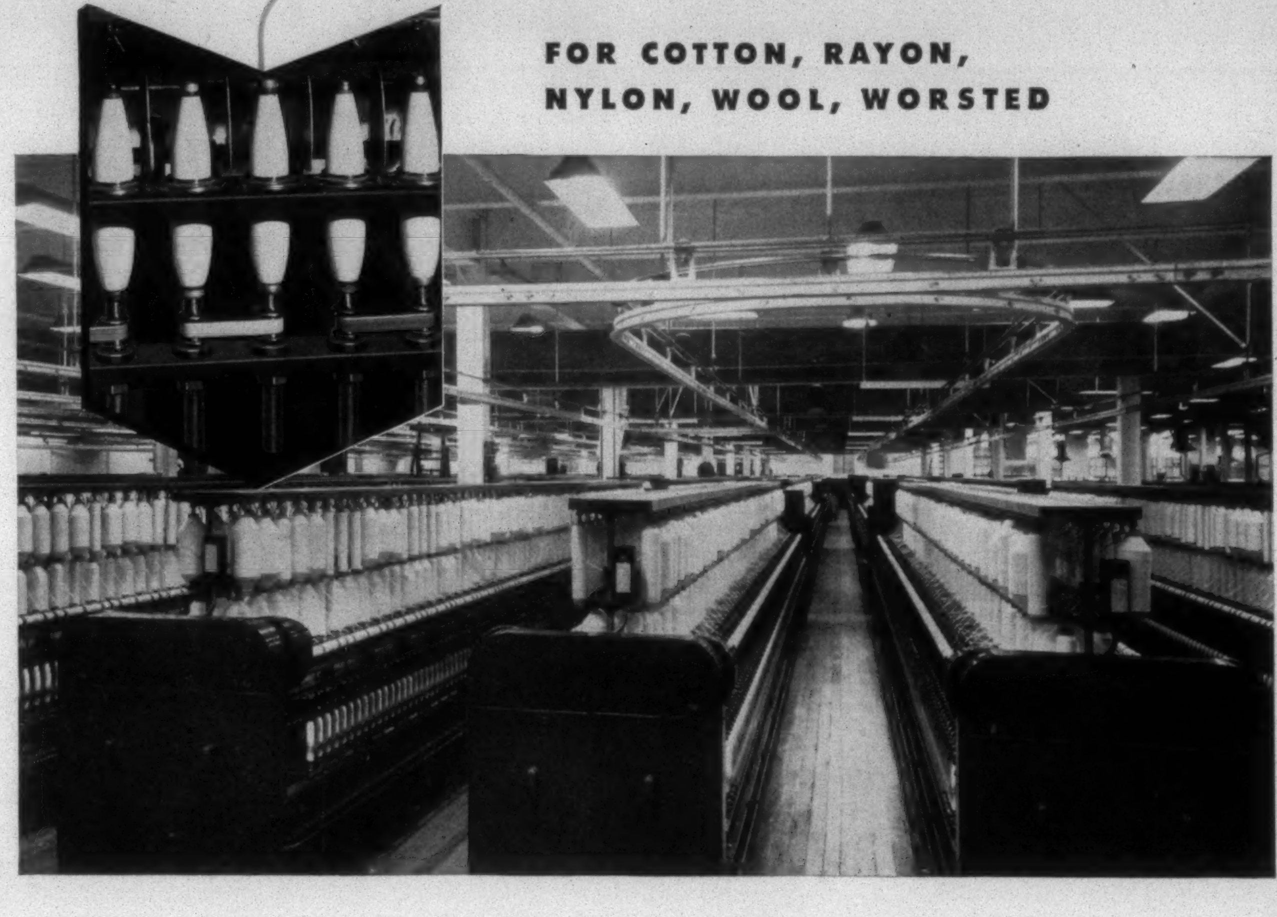

● Several years ago this mill ran a test on a frame of 312 Marquette Roller Bearing Spindles, and today has more than 124,000 in operation . . . some on new frames, some as replacements.

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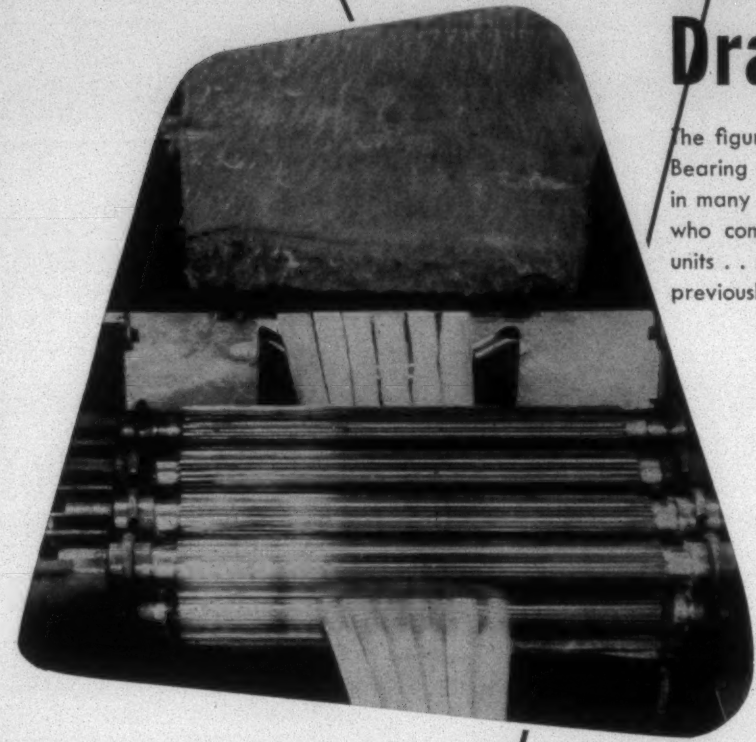

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Reports showed that Ideal Rolls delivered an average of 67% more drawing sliver per frame . . . 3 Ideal units more than replaced 5 ordinary ones. This increased production resulted from Ideal's high speed and uninterrupted operation.

Want Better Quality Yarn?
These mill men's reports showed a 7.4% improvement in breaking strength, 26.9% less variation in drawing sliver, 20.5% less variation in yarn numbers, and far better running work on roving and spinning frames.

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textile bulletin

VOL. 77 NOVEMBER, 1951 NO. 11

N. C. Cotton Mfrs. Assn. Meeting

EARNINGS for the cotton textile industry comparable with other industries are necessary to attract new capital so that national emergencies can be met and a full supply of textiles ten to 20 years from now can be assured, Julian Robertson, retiring president, told the North Carolina Cotton Manufacturers Association in convention at Pinehurst Oct. 19.

"The public and the government would do well to show more concern for those who furnish the risk capital necessary to provide the tools of production," said Mr. Robertson, who is president of North Carolina Finishing Co. at Salisbury and Erlanger Mills at Lexington. "Neither shows sufficient interest in permitting the investors a fair return for the use of his savings or in preserving the security of his investment."

The association president told the manufacturers that "realistic" depreciation allowances would permit the retention of some of the capital required for replacing and modernizing plants, but added it would surely take higher earnings in order to attract new capital for spinning and weaving mills which, he pointed out, cost $250 a spindle and require the investment of over $16,000 for each job.

He said that while there are almost daily reports of new production units for steel, oil, cement, synthetic fibers and other industries, there have been virtually no new cotton mills built in recent years. Admitting that some might ridicule the possibility of a textile shortage at the present time, when the industry is in a period of "painful readjustment," he asked: "With a rapidly increasing population, an even higher standard of living and frequent national emergencies, must there not ultimately be dangerous shortages unless the mills earn a profit sufficient to attract new risk capital and to reward that capital as it is rewarded in other industries?"

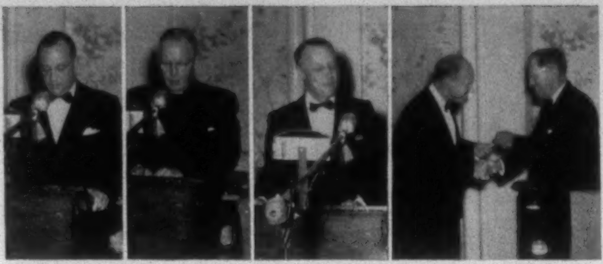
"The treaties recently executed by our country and the program we are sponsoring to win friends in the family of nations are certain to increase the pressure for imports of textiles from cheap labor nations," he said. "That is a threat to our industry and to our people which we must combat with every means at our disposal. Imports of textiles from low-standard-of-living nations will reduce textile employment, reduce payrolls and the standard of living of all who are partly or totally dependent on the American textile industry. The problems of friendly nations are our problems and we cannot separate our over-all welfare and economy from theirs. However, other nations have natural markets in areas relatively near them and they should supply those markets. For example, Japan could sell her surplus textiles to the East Indies and could purchase our agricultural surpluses; selling us in exchange her silk and products which we need from the East Indies such as copra, tin and rubber."

Mr. Robertson said that it should be "thoroughly understood" by public officials and by the public that whatever affects the textile industry in America, whether it be some policy which throttles production or whether it is a flood of foreign goods, also affects North Carolina directly and in greater proportion than any other state, since North Carolina is the dominant textile state in the nation. "The industrial prosperity of the state was built on a textile foundation," he said, "and while North Carolina is now blessed with important agriculture and industry of many kinds, the textile industry was the beginning of its industrial activity and remains by far the most important." He cited that in this state alone the industry employs about a quarter million people.

The retiring association president noted that textile or textile-related plants are locating in the mountainous western part or in the heretofore purely agricultural eastern part of the state, contributing to a balance of agriculture and industry in North Carolina. As an example, he cited the $33 million plant that Du Pont is building near Kinston to make Dacron, which will complement the supply of wool.

"Those of us who are connected with the textile industry have an especially good and timely reason to be proud of it," he continued. "We cannot be elated over profit margins, or the quantity of unfilled orders, but we are proud of what our industry has done in the nation's critical fight on inflation. In the year since we last met together the miracle it has achieved is as follows: It has supplied the garment manufacturers, the stores and the consumers all the textile products they asked for, and it has supplied the

Officials of the North Carolina Cotton Manufacturers Association, ***left to right:*** **Julian Robertson, H. K. Hallett, Carl R. Harris, E. N. Brower and Hunter Marshall.**



Banquet activities, *left to right:* Victor Bryant praises William H. Ruffin's industrial accomplishments; Bishop Penick lauds Mr. Ruffin's contributions to the community; Bill Ruffin responds; and Julian Robertson turns over the organization's gavel to incoming president Carl R. Harris.

Armed Forces all that they required. A year ago this seemed impossible but today the fear of textile shortages is completely dispelled. Panic buying has ceased. Prices have fallen and the market is very competitive. There can be no doubt that in this emergency the textile industry has licked inflation. The textile inflation is now as completely deflated as an exploded balloon."

Mr. Robertson, touching on political trends and public thinking, remarked that "whether we are in a state of peace, cold war or hot war, we must do our best to protect the national economy and to preserve the incentive to produce, both of which are endangered by inflational pressures and tax rates which drain off income that ought to be diverted into productive channels." He added "I do not see how we can preserve the opportunity system if our government continues to appropriate billions of dollars for non-essential spending and to constantly increase the public debt. This policy must inevitably bring on a loss of confidence in the government, taxes which approach confiscation, still more government controls, and eventually the loss of individual liberty."

Mr. Robertson's address, which was acclaimed by those in attendance as one of the most outstanding speeches in the association's 45-year existence, led off the convention's open business session Friday morning. This was preceded by a closed membership meeting the evening before, at which Hunter Marshall of Charlotte, secretary-treasurer, delivered his annual report, and reports were presented by the association's legislative, tax, traffic, cotton, finance, safety and membership committees.

At the Friday meeting other addresses were delivered by Robert M. Hanes of Winston-Salem, N. C., president of Wachovia Bank & Trust Co., and Dr. George D. Heaton, pastor of Myers Park Baptist Church, Charlotte. In Mr. Hanes' manner of thinking, the only apparent solution to the problem of overproduction in the textile industry—if mills are to stay in business—seemingly is "management's applying self-regulation and restraint to avoid building up excess inventories and the consequent heavy losses from declining prices." According to the speaker, mill executives "must set realistic production limits and then stick to those limits even in the face of great temptation to take advantage of a favorable market. With this as a permanent operating policy, management can then devote more time and effort to improving quality, rather than obtaining maximum production, and to realizing the greatest possible efficiency in every stage of the manufacturing process."

He said such decisions would be difficult for individual operators to make unless the plan is supported "for the good of all by the entire industry." The alternative, Mr. Hanes stated, is "survival of the fittest, and that may be the solution we shall see."

Speakers at Pinehurst: *at left,* Robert M. Hanes; *at right,* Dr. George Heaton.

Time and again, he said, it has been clearly shown that this capacity can, if not checked, quickly outstrip normal demand, usually resulting in "an intense and disrupting price war." When prices are strong, he declared, the industry-wide tendency is to boost production by all means possible, with output reaching unmanageable proportions. "No commercial market could remain steady and in good health under such an onslaught. Instead, prices falter as individual mills seek to dispose of their current production or inventories; new orders are held back as converters and traders begin to wait out the best price; and industry goes into the doldrums until available stocks can be moved and demand for goods revives."

Mr. Hanes reminded that some managements, realizing the market slowness, some time ago curtailed operations, but most textile concerns for competitive reasons and considerations involving labor kept running for a longer period "until inventory became so heavy that curtailment became a necessity." He felt more price reductions will come as some manufacturers find it impossible to carry stock further. "It is likely that some marginal producers will not be able to stand the gaff, but I am confident that the well-managed mills will not suffer drastically if his 'working-off period' is not too prolonged." It is believed that the balance of the fourth quarter will be "moderately quiet" but within the first or by the second quarter of next year the industry "should find itself on better ground." He pointed to anticipated increase in military procurement and a generally lower retail price for cotton goods that is expected to attract consumers.

Although cotton textile production machinery has declined—spindles from 38 million in 1925 to present 23,500,000, and looms from 715,000 in 1927 to the currently estimated 500,000—this has been offset by large-scale modernization, addition of the third shift and six-day operation, Mr. Hanes noted. He believes that there are unrealized uses for cotton and blended constructions which will be found only through "aggressive research and experimentation."

The business segment of the convention concluded with the election of Carl R. Harris, vice-president and assistant treasurer of Erwin Mills, Inc., Durham, as president of the North Carolina Cotton Manufacturers Association. H. K. Hallett, Charlotte, vice-president and general manager of Kendall Mills' gray cloth division, was elected to succeed Mr. Harris as first vice-president, and E. N. Brower, president of Rockfish-Mebane Yarn Mills, Inc., and Brower Mills, Inc., at Hope Mills, N. C., was named second vice-

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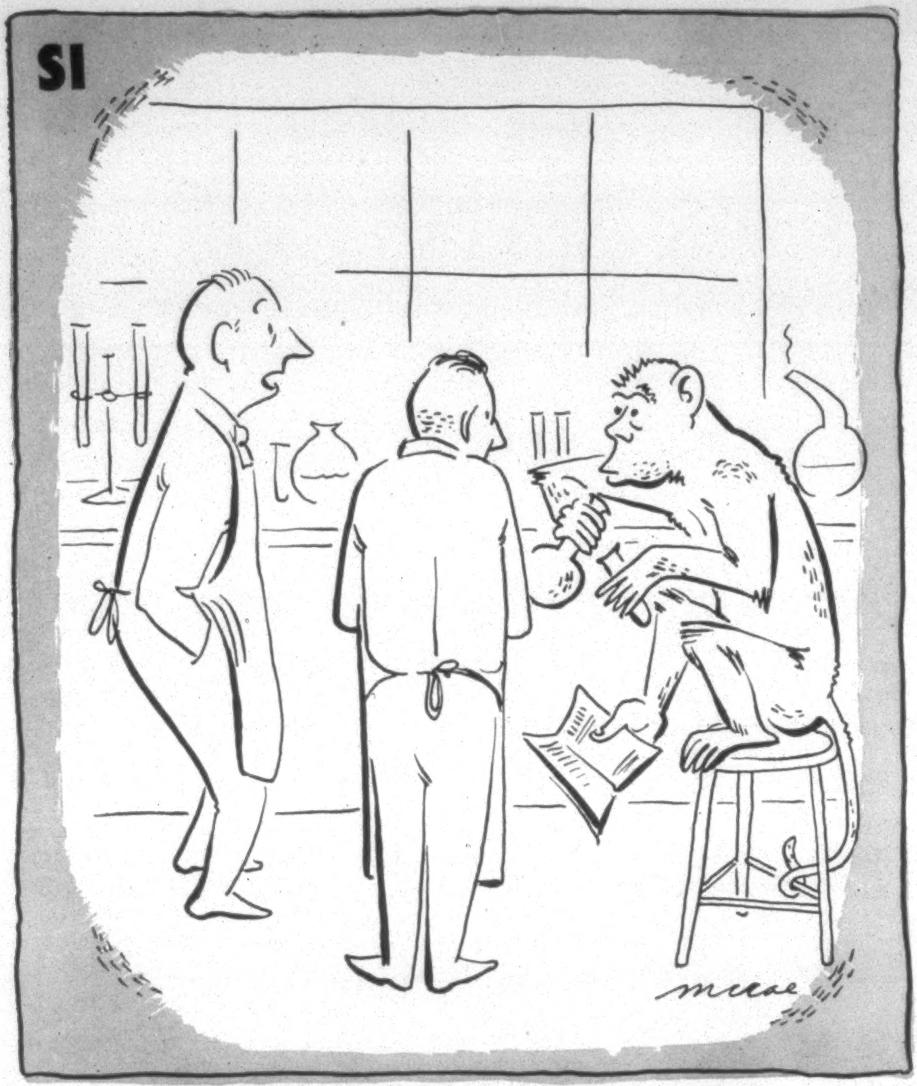

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Composite view of the head table during the banquet which concluded this year's meeting of the North Carolina Cotton Manufacturers Association.

president. Hunter Marshall continues as secretary-treasurer.

Newly elected directors for three-year terms are: John Harden, Burlington Mills Corp., Greensboro; Harold W. Whitcomb, Fieldcrest Mills, Spray; and Harry C. Carter, J. P. Stevens & Co., Inc., Greensboro. Re-elected to the board were Albert S. Orr, Monroe Mills Co. and Union Mills Co., Monroe; D. R. LaFar, Jr., LaFar group of mills, Gastonia; and B. Everett Jordan, Sellers Mfg. Co., Saxapahaw. Marion W. Heiss, Cone Mills Corp., Greensboro, was named to fill the unexpired term, ending in 1953, of Mr. Brower.

Board members remaining for another year are: J. A. Cooper, Harriet and Henderson Cotton Mills, Henderson; Eugene Cross, Jr., Cross Cotton Mills Co., Marion; C. V. Garth, Shuford Mills, Inc., Hickory; D. A. Long, Amazon Cotton Mills, Thomasville; Harold Mercer, Firestone Textiles, Gastonia; and W. H. Suttenfield, American Yarn & Processing Co., Mount Holly. Those with terms expiring in 1953 are: C. C. Dawson, Burlington Mills Corp., Cramerton; H. M. Jones, Waverly Mills, Inc., Laurinburg; Paul M. Neisler, Neisler Mills, Inc., Kings Mountain; J. C. Roberts, Textiles, Inc., Gastonia; and Ben R. Rudisill, Carlton Yarn Mills, Cherryville. Retiring directors are: H. F. Hunsucker, Highland Cotton Mills, Inc., High Point; F. O. McShane, Sayles Biltmore Bleacheries, Inc., Biltmore; and Caldwell Regan, retired manufacturer, Gastonia.

Edward S. Reid *(right)* of Sonoco Products Co., Hartsville, S. C., who conducted the golf tournament during the North Carolina Cotton Manufacturers Association convention, asks the three contestants who tied for low net to throw high dice to determine a winner. *Left to right*, Joseph W. Lineberger (the ultimate trophy winner), Frank Edwards and Joe C. Cobb.

Friday afternoon at Pinehurst was devoted to golf, skeet and other recreation. Three golfers tied for possession of the Corn Products Sales Co. trophy, which is awarded annually to the member with the lowest net score. The low scorers were Joseph W. Lineberger of Majestic Mfg. Co., Belmont, Joe C. Cobb of Pacific Mills at Rhodhiss, and Frank Edwards of Henrietta Mills at Caroleen. Mr. Lineberger was awarded the trophy as the result of a high dice throw.

A banquet Friday night, ending the convention, was devoted to honoring William H. Ruffin, president and treasurer of Erwin Mills, who this year is president of the National Association of Manufacturers. Victor S. Bryant of Durham, who is attorney for the North Carolina Industrial Council's tax committee, paid tribute to Mr. Ruffin's business leadership in an address entitled "Industry and the Man." The Rt. Rev. Edwin A. Penick of Raleigh, bishop of the Episcopal Diocese of North Carolina, presented in "The Community and the Man" an able account of Mr. Ruffin's contributions to educational, religious and other non-business activities.

What Top Management Expects From STATISTICAL QUALITY CONTROL

By WILLIAM A. KARL, General Manager, Textiles Division, Firestone Tire and Rubber Co.

PHRASED briefly, statistical quality control should give management the highest quality product at lowest cost with the materials, machinery, and manpower available—the three "Ms." This brief explanation covers a lot of territory, and I believe a more detailed picture of how this is brought about will be of interest to you. As an outline, keep in mind the three Ms that I have mentioned—materials, machinery, and manpower.

We will start on the premise that the first M, the raw material, cotton, meets plant requirements based on certain fabric specifications or to maintain a competitive cost. Without a doubt S.Q.C. could be used in the classification of cotton. S.Q.C. acceptance sampling procedures adapt themselves readily to this phase of control.

A statistical quality control program *must start* at the *management level* of a plant and be accepted by every employee—supervisors as well as machine operators. Progressive managements recognize the need for it to strengthen their position in a given industry. To ignore the increasing use of statistical techniques in processing control and in control of outgoing quality postpones the evil day when their customers will force it upon them.

S.Q.C. techniques are adaptable to almost any type of manufacturing process, and certainly in a cotton textile plant wide use of S.Q.C. is possible. It is more important to make a start than try to cover all things at once. In other words, S.Q.C. should crawl before it walks. Once a start is made, if on a sound basis, expansion of the program will take care of itself.

Every picker room in the country has a scale and each lap is weighed, and if coming within prescribed limits, it goes on to the card room; otherwise it is turned back and re-run. We could go on at length as to the reason for the variation in weight, but let us assume the atmospheric conditions are sufficiently uniform to avoid trouble from this source. The picker room supervisor has his machines in excellent working order because the number of laps returned have been reduced to what he considers a small percentage. Here is where S.Q.C. starts. What constitutes good performance? To determine this, it is necessary to calculate control limits from data on actual variations in lap weights as well as lap lengths. Using control limits as a guide, tolerances can be intelligently established, but even after this has been accomplished what about the variation within the lap?

The Saco-Lowell lap meter is an important tool in establishing the yard-to-yard variation in weight in the lap. When confronted with data within the lap, the picker room supervisor often has a red face. During the preliminary studies the S.Q.C. personnel have an excellent opportunity to arouse curiosity on the part of the machine operators. This curiosity has to do with a discussion of another of the three Ms, namely, manpower, and we will talk about that valuable asset to management later.

With a detailed knowledge of the variation that exists, not only in the weight from lap to lap but in the weight from yard to yard, the first job belongs to management to see that variations resulting from the second M, machinery, are eliminated. S.Q.C. studies can demonstrate that machines may have improper and uneconomical set-ups, or that they have been worn or so badly maintained that reconditioning is necessary, or in some cases even replacement may be more economical. Management will expect that information too.

The Uster tester is an important tool in S.Q.C. and therefore a part of the over-all management tool. Preliminary studies of card sliver on the Uster tester brought out some amazing facts. A study of the chart on one card showed a heavy place at regular intervals. By checking through the draft or cycle of the card it was found to be in the feed cycle. A check of gears showed a missing tooth on the feed roll plate gear and each revolution produced a light place. Another instance showed a marked variation, but on a different cycle. Checking it down, it was found that the wire of the doffer clothing of the card had been damaged. Replacing the gear and the damaged clothing corrected both variations. These are only two specific examples of how careful analysis of machinery has helped to bring uniformity to card sliver.

Moderator Francis H. Martin *(standing)* leads the panel discussion of quality control in small and medium-size textile plants, which was a part of the Textile Quality Control Association program at Clemson, S. C., Oct. 12. *Seated, left to right,* are: Elvin H. Bond, Duke Kimbrell, R. C. Tanner and Frank C. Williams, Jr.

A check of drawing sliver recently showed a pronounced variation at regular intervals. In checking back on the cycle of draft it revealed one of the drawing rolls to be operating off center, denoting a bent roll. Its replacement immediately eliminated the variation.

With competition ever keener, concepts of good practice have been literally thrown out the window. Years ago the maximum number of doublings seemed to be the way in which to obtain the highest quality in yarn from the standpoint of uniformity and strength. What do we have today? One-process pickers, controlled draft drawing, long draft roving, superdraft spinning, and in the end, card sliver and roving more uniform than ever before. Part of the improvement necessarily has developed from a better engineered textile machine. The use of ball bearings and cut gears, to name two improvements, has contributed to making possible some of these refinements.

The Stroboscope or Strobotac is an important tool in machine analysis. With literally thousands of spindles in the spinning and twisting rooms, none driven by individual motor drives as in the case of rayon spinning spindles, there is bound to be some variation. The Strobotac has made it possible to know the variations that have existed, permitted an analysis of the assignable causes for variations, and through the study and elimination of these assignable causes aided quality control in reducing variations to acceptable limits. It is fair to say this tool was being used before the *highly technical science* of S.Q.C. was accepted. It is becoming more and more a factor in quality control in our operations. We should be able to reduce the necessity, or at least the present practice, of having each and every spindle checked for speed at specified intervals. If S.Q.C. is to be a management tool, uniform spindle speeds within acceptable limits are a necessity. Checking the spindle speeds as often as is now being done should be unnecessary, thereby allowing the S.Q.C. man more time to study other operations.

It is interesting how little management, let alone many supervisors in our textile plants, know about the variation of spindle speeds and the effect this variation has on their product through the medium of high and low twist. This variation is particularly detrimental in the ply and cable twisters used so generally in the tire cord industry, and in our earlier studies as to the causes for variation we soon adopted the Strobotac as an important tool to indicate and help reduce the variation to acceptable levels. I don't believe we need to discuss the reasons for the variation, but they exist in every plant, and a study will amaze most plant managers and supervisors, who have paid little or no attention to this phase of operation.

Fundamentally, it is the knowledge gained through S.Q.C. using tools available, such as the lap meter, Strobotac and the Uster tester, that has helped the cotton textile industry continue to improve its efficiency both from the standpoint of quality as well as cost. While we are on this subject, the high wages now paid in textile plants necessitate the

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There are many other tools now in use, and there will be additional tools developed in the future as the need for them arises, through S.Q.C. studies. This is another benefit that top management should expect from those in charge of S.Q.C. What further tools for control can be utilized to advantage?

The Fielden mean deviation meter shown for the first time at Manchester College of Technology in July is such another tool. The meter automatically and continuously weighs one-centimeter lengths of yarn, integrates the results, and presents the answer in terms of percentage deviation of the whole, the operation being carried on while the yarn is being wound on a warp reel for the normal check of count or size. I am sure top management will expect the use of such an instrument.

Earlier I mentioned a study of variation of picker lap weights should arouse the curiosity of the machine operator. This has to do with the discussion of the third M that I mentioned earlier in my talk—manpower. It may well arouse the curiosity of the supervisor as well. Someone is going to raise the question as to why the supervisor's curiosity will be aroused. I still believe our textile plants are not yet completely staffed with supervisors who are familiar with S.Q.C. and its workings and merits, and as a consequence they, too, will be curious. Either they can be schooled in S.Q.C. before its adoption, or after the preliminary studies have been completed. Personally I feel the former has its advantages, but this, of course, is debatable.

Once a machine operator's curiosity is aroused, management working through its S.Q.C. and supervisory staff can make the machine operator part of the team. Too few employees know what they are doing, why they are doing it, and what the consequences of variation in the product they produce mean to the success of the company. After all, most of us discuss our daily activities in the family circle. Put yourself in the position of a picker tender or card operator, who is doing the same job day in and day out. How much more important he feels when he can sit with his family and discuss with them this new development on his job—S.Q.C. How important he will feel when he can, at the end of the day's work, go home and say, "Today none of my laps had to be turned back to be re-run."

Yes, top management expects from S.Q.C. an opportunity to educate the employee to his responsibility. Once the employee understands thoroughly what he is doing he is going to be a better employee, and certainly will take a great deal more pride in seeing that more and more of his output is within prescribed limits.

We are all artists at heart. If we were painting a portrait we would want it to be as true to the likeness we are painting as humanly possible. So it is true with the vast majority of workmen. They want to take pride in what they do, but unless they know what is required and are let in on the secret, how are they going to know? S.Q.C. automatically indicates what is required and aids the operator in meeting that requirement. Therefore I repeat, management is going to expect S.Q.C. to be an important tool in the field of personnel relations.

Let's revert to the picker. After thorough experience with S.Q.C. proper machine maintenance and settings, we should find it unnecessary for the picker tender to weigh every lap. Isn't it then conceivable that by eliminating the necessity for weighing more than one in ten, he can handle additional duties and thus reduce cost? There must be similar opportunities elsewhere. There is one thing management will expect from supervision and that is a greater knowledge of and better performance from their machines, especially with respect to those phases which have anything to do with variations in quality.

Management will also expect an improvement in the operational knowledge and ability of its entire organization down to the last man. Can S.Q.C. be applied to a sweeper's job? The answer is yes. Even a stopped clock shows the correct time twice each day. S.Q.C. is not a cure-all, but it has placed in the hands of management a big challenge. The degree of success with which S.Q.C. is used in any plant depends on just how anxious management is to expand its use in the manufacture of its products. If management isn't curious, competition will take care of that.

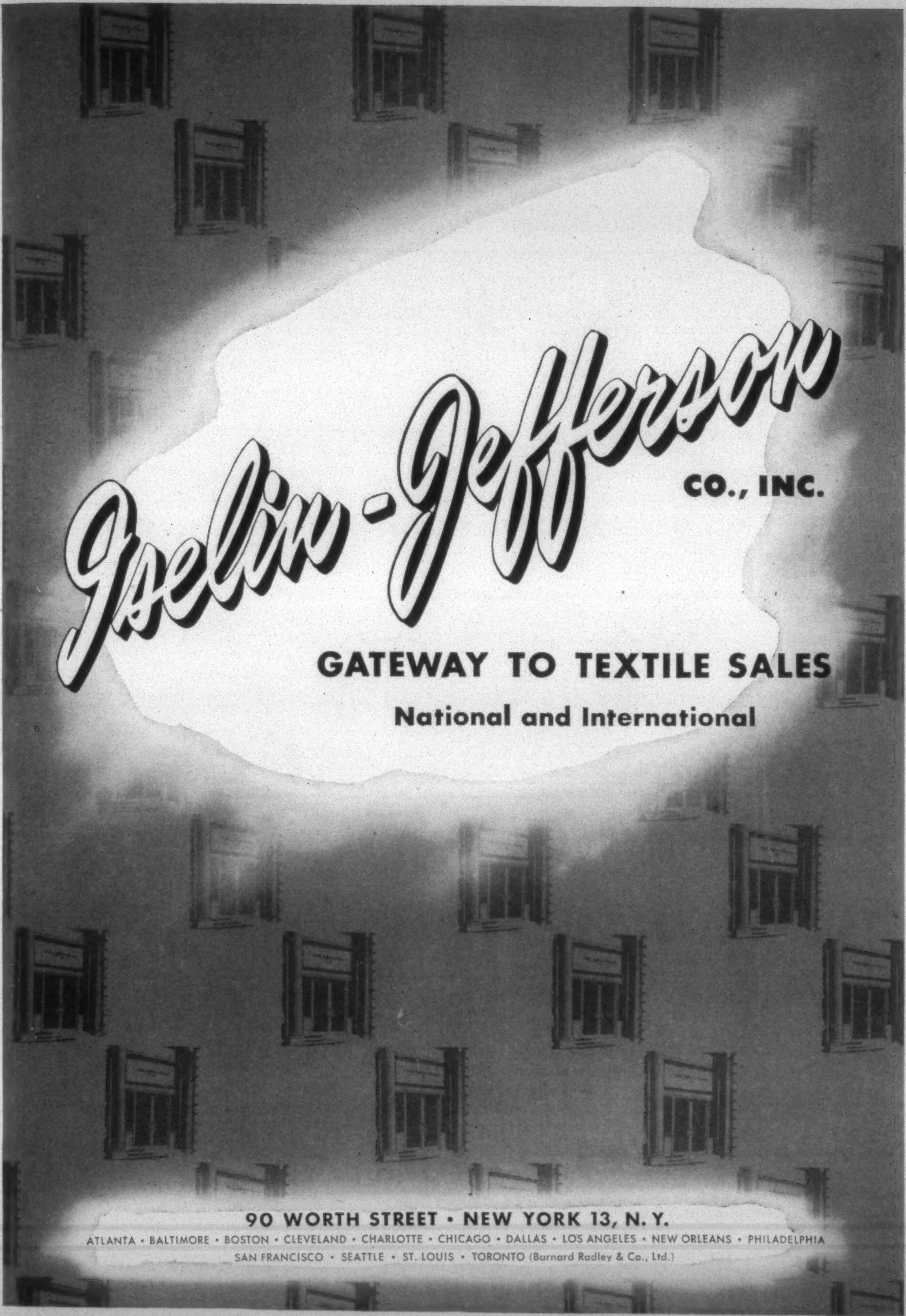
—Fall Meeting, Textile Quality Control Association—

THE Fall session of the Textile Quality Control Association, held at Clemson, S. C., Oct. 12, offered a wide variety of technical information of interest to those concerned with maintaining consistent values in textile manufacturing processes—which should include everyone in the business. An abstract of one of the five principal addresses at the meeting, that of William A. Karl, immediately precedes this account of the program.

The program began with a discussion of "The Use of the Arealometer for Determining Fineness and Maturity" by Dr. Kenneth L. Hertel, director of the University of Tennessee fiber laboratory at Knoxville. Dr. Hertel's paper was similar to that delivered at this Spring's Cotton Research Clinic and which was reported at that time.

"Quality Control in Small and Medium-Size Textile Plants" was the subject of a panel discussion led by F. H. Martin of Springs Cotton Mills, Lancaster, S. C., and participated in by Duke Kimbrell of Parkdale Mills, Gastonia, N. C.; Frank C. Williams, Jr., of Patterson Mills Co., Roanoke Rapids, N. C.; Elvin H. Bond of U. S. Rubber Co., Winnsboro, S. C.; and R. C. Tanner of Fieldcrest Mills, Spray, N. C.

Quality checks made in a mill spinning combed cotton knitting yarns were described by Mr. Kimbrell. Weekly tests of picker laps are made on a Saco-Lowell lap meter, with a 90 per cent average. After the card grinding, sliver averages, set at ten per cent, are calculated from Uster tester readings. A limit of approximately 25 per cent was established for each comber, which was found to be the most difficult machine to control, he said. Following the overhauling, laboratory checks are required before combers and drawing frames may be started again. Twenty per cent average on the first process drawing and 15 per cent on second were listed for each delivery. Every eight weeks, two to three ends of two-hank slubber roving are checked, with an average set at approximately 28 per cent. Yarn



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Dr. K. L. Hertel *(left)* explains the use of the Arealometer in determining fineness and maturity of cottons; also pictured are some of those who attended the Textile Quality Control Association meeting at Clemson Oct. 12.

tests are made daily for softness, evenness and neps, Mr. Kimbrell explained. Nep counts are taken on a nep count board made at the mill. It is five by ten inches, covered with blank felt cloth, and has a metal sheet with 21 holes. Yarns are run on spring-needle flat and rib-knit machines.

By training operators to control the average weight of picker laps, no gear changes in drawing, roving or spinning were necessary for a three-month period, said Mr. Bond.

Uniformity tests of carding and spinning revealed bad rolls on machines that had not been suspected, according to Mr. Tanner. Recently the company has been using the I.T.T. picker lap uniformity meter. One picker after overhauling dropped from 22 to 11 per cent non-uniformity, he said.

By testing cotton with 2,000-pound samples, and making checks at various processes, the breaking strength can be determined more easily, said Mr. Williams. Monthly checks for correct twist multiplier are conducted, and pickers are overhauled quarterly. Picker laps are checked weekly, he reported, and each card is checked after grinding. Daily size and count strength product of yarns and warp and filling break strengths are figured.

Following Mr. Karl's appearance at the luncheon, those attending the afternoon program heard a discussion of "Long and Short-Term Variation in Sliver and Roving" by J. J. Simpson of the Southern Regional Research Laboratory, New Orleans, a description of "The Continental Approach to Testing" by Hans Locher of Zellweger, Ltd., at Uster-Zurich, Switzerland, and a briefing on "New Developments in Instruments and Testing" by Dr. Hugh M. Brown, dean of the Clemson College School of Textiles.

The tendency in European technique, Mr. Locher stated, is to compare various tests such as irregularity of fiber distribution and quality, breaking strength of yarn and appearance of finished fabric. Relationship between unevenness of yarn cross-section and finished fabric appearance holds top place in testing problems, he asserted.

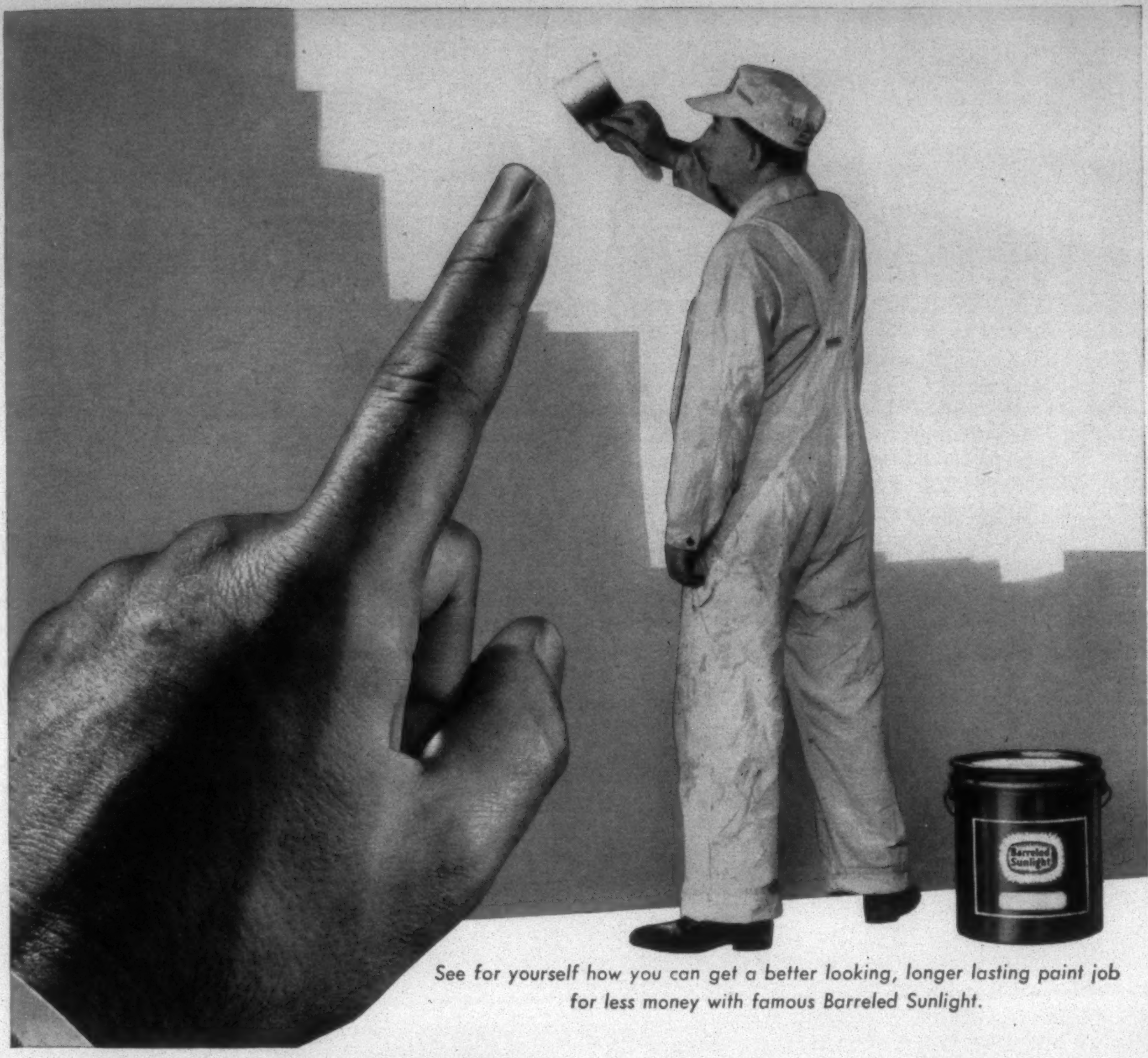
Opening, Picking, Carding & Spinning

The Saco-Lowell Worsted System

By GILBERT D. HARRISON, JR., Research Department, Saco-Lowell Shops, Biddeford, Me.

FOR many years worsted yarns have been produced by a cumbersome process which included seven to nine separate operations between the gill box and a finished yarn of medium to fine count. The quality produced has been acceptable to the trade but costs of manufacture have been high. During the 1940s, the time was ripe for us to use the experience gained in streamlining the cotton industry and in developing machinery for the synthetic field, in developing a new processing system for the worsted industry. The object of the engineers who were assigned the task of developing the Saco-Lowell worsted system was simple even though the problems facing them were not. It was to produce yarns surpassing those produced by the French and Bradford systems at costs which would compare favorably with those of the modified cotton system. The obvious answer to the matter of cost was to reduce the number of operations involved, through the use of long drafts. The problem was to do this and still produce the superior quality yarn which was essential.

The answer to the problem lay in maintaining proper control of the fibers while they were being subjected to the strenuous drafting process. We elected to do this according to the patented principles of Benjamin Shaw, a Saco-Lowell engineer who had had a large part in developing long draft systems for cotton and rayon. Briefly, Shaw's idea was to maintain a yielding grip on the fibers being drafted and to let inter-fiber friction exercise a substantial part of the control. Many modifications to Shaw's drafting



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system were required in applying it to the worsted field, but the basic principles were not changed.

The Saco-Lowell worsted system starts with top from the gill box or pin drafter. Its first step is passage of the stock through the DS1 drawing frame commonly known as the "3-over-4." The important feature here is the drafting element. Basically it is a two-zone system consisting of four lines of bottom steel rolls and three lines of top rolls. The front and back lines of top rolls act on their respective bottom rolls in the conventional manner. The middle top roll, which is 2⅛ inches in diameter, rests on and is rotated by the third middle roll (from the front of the frame). Thus, a positive nip is created between these two rolls. The arbor of the middle top roll is supported in such a way that the surface of that roll is usually maintained at a distance of .030 of an inch from the surface of the second bottom roll which is of "satin finished" sand-blasted steel.

The drafting takes place in two zones. First, there is a break draft between the back rolls and the nip between the third bottom roll and the large middle top roll. Second, there is a main draft between this nip and that of the front rolls. The fibers in the second zone must pass through the .030-inch gap between the second bottom roll and the middle top roll while they are being drafted. The rotation of these rolls exerts a gradually diminishing pressure on the fibers as they pass through which tends to remove kinks or "hairpins" which may have escaped the straightening action of the previous process.

The total roll spread of the DS1 drawing frame is such that wool up to four inches may be drafted in its two zones. When we thus refer to the length of the wool we mean wool, the bulk of whose fibers do not exceed four inches in length. This does not preclude the presence of a small percentage of longer fibers. Naturally these fibers must either slip through the holding nip of the drafting zone or be broken, and if present in large quantities they will be detrimental to good drafting, in most cases.

There are other modifications to the drawing frame that have been necessitated by its application to long staples, but they are mostly of an auxiliary nature and need not be mentioned in detail here. Among them are the spring pressure system with quick release, the static neutralizing bar, and the double trumpet stop motion.

The roving and spinning systems developed by Saco-Lowell may be considered together since the principles employed in each are basically the same. Their drafting units vary chiefly from that of the drawing frame in that there is a single rather than a double drafting zone, and the fiber control is affected by the use of a roll and apron rather than rolls alone. By substituting the apron it is possible to maintain fiber control closer to the nip of the front rolls. This closer control has been found necessary as the fiber strand is reduced in bulk in the roving and spinning operations.

For convenience we can refer to this roving and spinning drafting unit as the "Type 4" drafting unit, the roving frame employing it being known as the FS4 and the spinning frame as SS4. The "Type 4" unit consists of three top rolls and three metallic bottom rolls plus a bar which serves as a guide for the front of an apron which passes over the middle bottom roll. The function of the front pair of rolls and the back pair of rolls is the same as in any drafting unit. The middle section consisting of the middle top roll, the middle bottom roll and the apron and apron bar deserve our attention. Again the necessity for extending the control closer to the nip of the front roll as the bulk of the fiber strand diminishes affects the means of control and therefore there is a difference in this middle control unit between roving and spinning, although each controls the fibers that slip through it by means of a yielding pressure and inter-fiber friction.

The roving (or FS4) control unit consists of a smooth metallic shell roll co-operating with an apron which passes over and is driven by the middle bottom roll. The top roll avoids a direct nip and is so positioned in relation to the middle bottom roll and apron bar that its area of contact with the apron begins well forward of the top of the bottom roll. The apron is thus depressed by the top roll between the bottom middle roll and the apron bar. It may readily be seen that as the fibers leave the area of contact between the apron and top roll gradually diminishing pressure is applied to them. There is no sudden release of the fibers which might allow them to snap out of position much as a stretched rubber band snaps when one end is released.

On the spinning (or SS4) control unit there is an additional small diameter self-weighted control roll which is located well forward on the apron and as close as practical to the nip of the front roll. The apron driving roll again employs the restraint principle. As in the case of the roving frame it should be noted that no nip is formed by the middle roll and apron section and that the pressure applied to the fibers being drafted is a yielding one. Because the control roll is used in the spinning version, there is no need for the top middle roll to depress the apron as in the case of the roving frame.

In both roving and spinning the middle control section is located in fixed relationship to the front rolls, without regard to fiber length. Any changes in ratch made necessary by changes in staple length can be affected by simply changing the position of the back pair of rolls. Both frames are built so that they may accommodate fibers up to nine inches in length, yet flexibility is so great that they are able to handle the shortest wools as well.

The problem of successfully drafting long fibers of irregular length in a single zone made necessary new concepts of roll weighting, which in turn created mechanical problems which can be easily appreciated. Plain roll bearings and reasonably accurate top roll alignment were good enough when dealing with pressures necessary to draft cotton. With combined pressures on front and back rolls of up to 200 pounds this was no longer true. These problems have been successfully met by the use of anti-friction roll bearings and the patented self-aligning top roll. The latter is based upon the fact that a pair of top rolls if allowed to pivot freely from the center of the arbor supporting them will seek its own alignment when forced against the bottom roll. This center support, incidentally, did away with the necessity for the cap bars which had formerly been standard and often troublesome equipment on spinning and roving frames.

The weighting system of the "Type 4" drafting unit is unique and worthy of mention. The middle top roll is simply and independently weighted by means of a stirrup and "C" spring. The weighting system for the front and back top rolls is capable of providing unusual loading on the rolls. Its main feature is its weight horn or arm which

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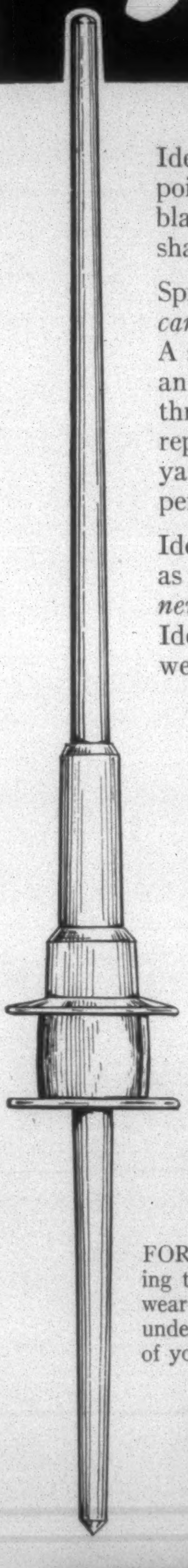

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is in the form of a bell crank mounted on a pivot pin supported by the roll stand. Its lower section is made hollow to contain a strong coil spring which creates the pressure which is transmitted through the leverage of the weight horn to a pivot point. This pivot point is slidably mounted on a bar which runs roughly parallel to and underneath the long arm of the horn. The weight is then distributed through this bar to the top roll arbors. By sliding the pivot point on the bar, total weight and the distribution of weight between front and back rolls may be varied at will. Pressures can be set with a gauge and once set will not be changed by removing and replacing the top rolls. The unit is equipped with a quick-release handle which releases the weight and allows weight horn and front and back top rolls to be readily lifted out of running position.

Just as interesting as the technical aspects of the Saco-Lowell worsted system are the results obtained on it. This short process of making worsted yarns is only in its infancy, the first commercial installation having been made in 1950. Incidentally, frames are now being built for this same mill, which will double the size of its installation. Although the total number of spindles running commercially today is not large, widespread interest is indicated by the number of sample installations which have been made. Besides the domestic mills so equipped, Saco-Lowell worsted machinery has been shipped to Italy, Holland, Egypt, South America and Australia, with all reporting enthusiastically on the results obtained.

Statistical evaluation of the yarn produced in comparison with that produced by the traditional worsted systems is difficult to obtain because of the lack of uniform standards for worsted yarns. There is also the question of variations in wool from lot to lot which affect the quality of the yarn produced. We do feel, however, from tests that we have made on the Uster tester and the Seri-plane, that yarn produced on the Saco-Lowell worsted system compares very favorably with that produced on the French or Bradford system in evenness and appearance.

The versatility of the system was demonstrated at the Atlantic City textile show in May of last year. There, many of you doubtless saw 64s wool having some fibers up to six inches in length being processed on the drawing frame. The FS4 roving frame was drafting 50/56s wool having a staple length of seven inches. On one side of the spinning frame 50/56s wool was being spun into 13.3s yarn (cotton count). The other side of the spinning frame was spinning 64s wool into 21.4s yarn (cotton count). Drafts run were as follows: drawing frame 13.0; roving frame 10.8; and spinning frame 13.3 and 14.3.

The economics of the Saco-Lowell worsted system have not as yet been fully realized because of the relatively small size of installations. However, the manager of a mill in Australia has recently advised that he expects eight spinning frames to start with a maximum of five girls including doffers, cleaners and creelers. He also will have one operator on the roving frames supporting these eight frames and one on the pin drafters. This total of seven persons may be compared with 21 which he formerly required for a similar poundage.

An American worsted yarn mill which has installed a unit consisting of FS4 roving and SS4 spinning reports a reduction of approximately 20 per cent in labor cost, a two per cent saving on waste, and a 50 per cent reduction in defects found in the spun yarn as compared to similar yarns made by the same mill on a conventional worsted system. This mill is producing yarns for the knitting trade which are extremely critical. Nevertheless, one of the largest converters in the trade told the mill's management that the yarns were among the best he had ever seen. The mill is currently running 50/56s top through two operations of pin drafting to reduce it to 45 grains per yard. The sliver is made into 2.5 hank roving and spun into 18s yarn with eight or nine turns per inch (all numbers are worsted count). One operator is running five pin drafters, one operator three 96-spindle 10 x 5 roving frames, and a spinner about 530 spindles. On 28s yarn with 12½ turns per inch the spinners have run 800 spindles. Wools as fine as 64s and yarns up to 40s have also been run. As may be expected, the greatest economies are made in spinning the finer yarn counts where full advantage can be taken of long drafts.

What of the future? Long draft in the cotton system, though well over a quarter century in age, is still being improved. It can hardly be expected that the Saco-Lowell worsted system will not have some "bugs" in it that will only be found in actual operation in the mills over a period of time. Saco-Lowell engineers are working and will continue to work on minor details which cause difficulty in operation. It is only to be expected that major improvements will be made in the system as time goes on, but meanwhile the mill owner who waits for the 1956 model to come out is going to lose five very profitable years.

Mr. Harrison's paper was presented before the Sept. 21 meeting of the American Society of Mechanical Engineers' textile division at Boston, Mass.

Improvements: Drafting & Processing Of Drawing Sliver

By JOE R. WHITEHURST, Ideal Machine Shops, Bessemer City, N. C.

FOR economic reasons, it is a universally accepted desire to decrease the number of processes in the production of yarn, and at the same time improve the quality of the product, reduce the lost motion in various processes, decrease power required, maintenance cost, floor space required, and so forth, also maintain a constant flow of unvarying stock for quality control.

Therefore, at this time, some of the theories of drafting cotton fiber should be mentioned. Cotton fiber under the microscope resembles a flattened wiry-like twisted tube that is slightly impregnated with an oily substance; and in the bale or before any drafting is done, the fibers have no semblance of parallelization. The desired results would be to have all fibers perfectly parallel without removing the

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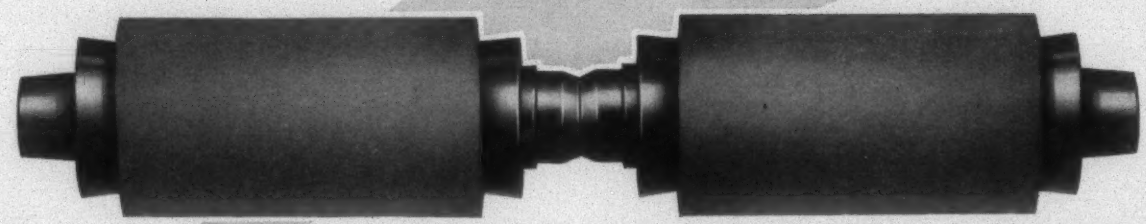

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twist or reducing the wiry adhesive quality of each fiber. It is believed that if the speed and draft is increased, friction of the sliver will cause the lubricant of fibers to increase in temperature, making them more pliable during the flexing that takes place while passing through the flutes and at the same time assisting in the permanent crimp of stock leaving the front roll, further effecting better parallelization and reducing the number of times necessary to draft.

With adequate mixing of stock during opening and improved succeeding operations through carding, single-process drawing is being used successfully in a number of plants, producing an improved quality. Reducing the number of processes will in turn reduce the number of piece-ups that cause thick places, the waste is reduced by not having as many piece-ups or short ends left in the can, the handling is reduced because it is done in a smaller area and it is not necessary to move the stock as many times. This in turn reduces the number of cans, floor space, upkeep, and power, effecting economy.

To bring out more clearly some of the points in mind, I would like to describe a new system of drafting rolls that has proven to have a number of features that permit considerable changes in the method of drafting and processing of fibrous stock—this is an all-metallic drawing roll system. First, and one of the outstanding features is the hardened and precision-ground metallic bottom and top fluted steel rolls. The flutes are form ground in hardened alloy steel to insure a prolonged mirror smooth finish for high-speed drafting without burrs or scratches that cause lap-ups or injury to the stock, the flutes having more than twice the pressure angle of conventional flutes to improve crimp holding and to permanently crimp the stock. The crimp in finisher drawing is an advantage for removing from cans in the next operation without stretching or slippage that causes thin places. All rolls are the same diameter, bottom and top, with a progressive change in flute form from front to back.

Second, and most important are the roll journals and their arrangement. They are prelubricated and sealed ball bearings, bottom and top. This arrangement eliminates the possibility of oily stock, since there is no oil or grease on exteriors of rolls or bearings, and at the same time the ball bearing journals are well oiled at all times, permitting high roll speeds requiring minimum power, and eliminating collars or spacers that revolve together. The ball bearing housings serve as spacers and do not revolve. This method relieves all weight from roll journals and permits them to revolve free on the ball bearings inside of bearing housings, this permits the top roll to maintain a floating action at all times.

The spacing is accomplished by resting the precision-ground top roll bearing housing on the bottom roll bearing housing that rests in the stands or slides. Therefore, all weighting is transferred from top roll bearing housing through bottom roll bearing housing to stand. This permits stock to pass through each set of rolls without any weight on the stock. When stock is passed through the machine, it is pulled from one drafting zone to another by improved crimp holding and not by any weight on the stock, therefore, it is possible to draft at much greater speeds than heretofore without damaging the stock. This same method permits longer drafts at each drafting zone. It also permits the drafting of very light stock or very heavy stock on the same machine. To further help this type of drafting, the equipment has ball bearing studs for all gearing and is equipped with fibre gearing to reduce static and heat. This, in turn, permits closer gear setting, helping to eliminate vibration.

This equipment is being used for carded and combed stock successfully as two-process and single-process, six, eight, and ten end creels for cotton, synthetics, wool, and mixtures, from 105 feet per minute through 267 feet per minute, coiling being the limitation for much greater speed.

There are other correlated products, such as the new electronic testing devices. With them it is possible to make correcting adjustments at each stage of processing from pickers through finished yarn. These devices have helped tremendously in the improvement of existing machines and development of numerous equipment now being placed on the market, including the system just described. Having these devices to assist in research and development, there is a possibility of adapting the metallic drafting system to fly frame drafting rolls. If this proves satisfactory it will remove numerous bad features now present, the most desirable being varying friction on journals of bottom rolls, top rolls at saddles and ends, cots becoming loose, out of round and grooved, varying consistency of cots, the majority of slubs caused by eyebrowing and like conditions, causing uneven roving. This in turn will lead to the heretofore impossible, experiments for adaptation of this system to spinning drafting rolls. If this should prove to be a possibility, then the combining of roving frame drafting and spinning frame drafting will eliminate roving frames, at least on the coarser yarns.

This brings to mind the fact that we have had metallic top rolls before for fly frame drafting rolls. However, we never had hardened ground flutes designed to crimp hold,

Joe R. Whitehurst *(standing)* **describes improvements in drafting and processing of drawing sliver; carding and spinning discussion leader Sam Riley is pictured with him. Shown** *at right* **are those who participated in the carding and spinning discussion.**

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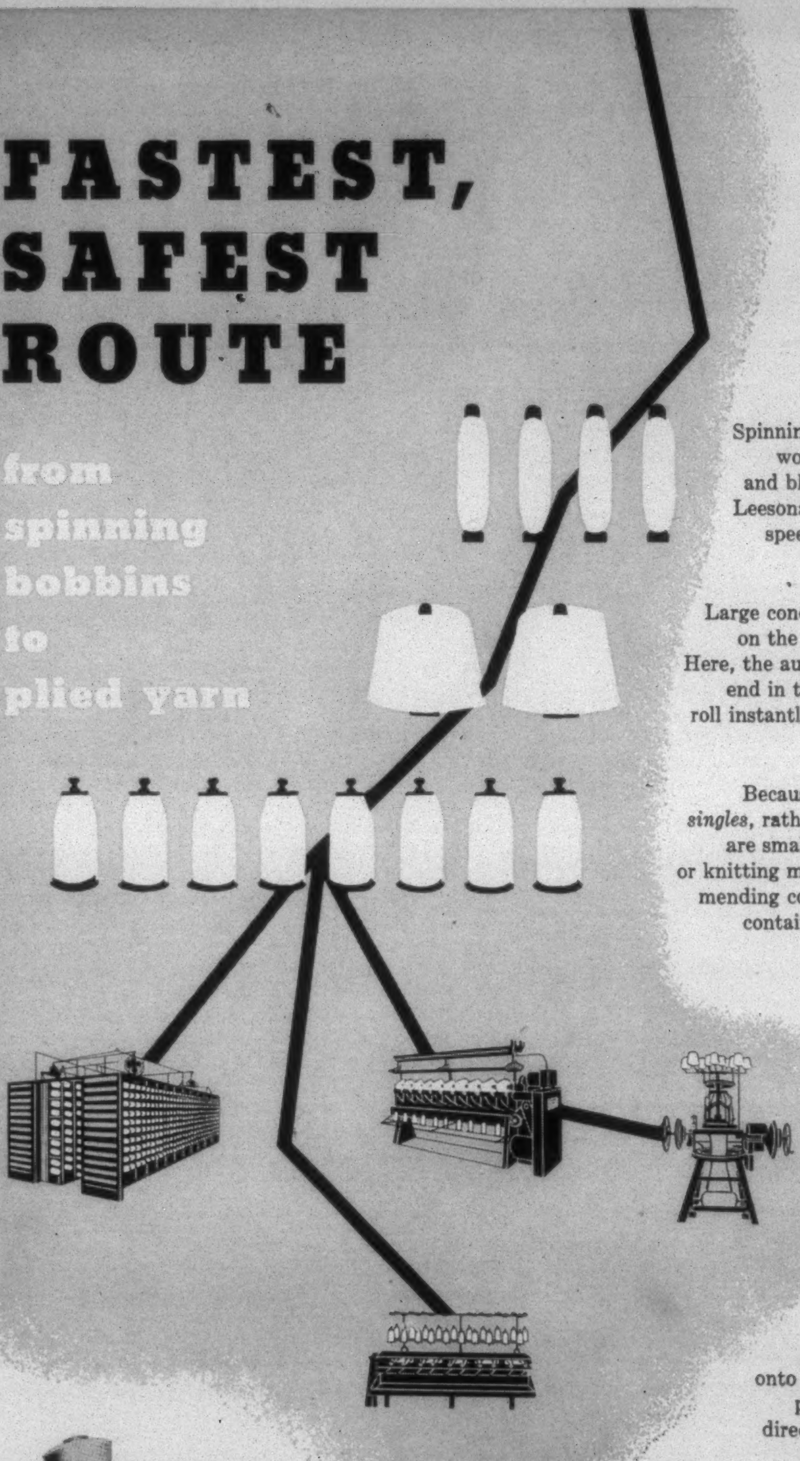

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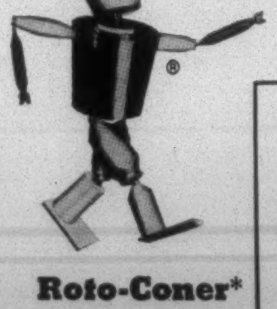

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and floating top rolls indexed only by stock passing between the flutes. In the near future data will be available on experiments with metallic drafting rolls on fly frames, and within a year plans are to have data on spinning frame metallic drafting rolls.

Discussion

Mr. A: I should like to know if there are any comparisons of tests available.

Mr. Whitehurst: Numbers of tests are available. We can give the names and everything, showing the comparative tests with new equipment that is being installed now; and it is comparable even at higher speeds.

Mr. A: Generally speaking, the sliver will have a certain amount of uniformity. On the Saco-Lowell sliver tester they say 20 per cent is excellent. Under or over that is not so good. I wonder if you have any comparisons along that line?

Mr. Whitehurst: On comparisons with carded stock we find the variation is 15 per cent; some higher, some lower. On combed stock I would say the variation is ten or 11 per cent. That is on 200 feet a minute, finished stock.

Chairman Riley: How does the Uster compare with the results you get from the Saco-Lowell sliver tester? Does anybody know?

Mr. Whitehurst: Our findings have been that on the Uster tester you get slightly lower variations than you do on the Saco-Lowell tester. I think that is from compressing the sliver, the two wheels being arranged so that the sliver is compressed, and it is not evenly compressed all the way. If you take a high-powered glass and watch it, if you let it run for a short distance and watch it you will find the upper wheel will actually be riding on top of the stock. Then the stock will feather out and be running free of the wheel for a while. When it is running under the wheel we have the full diameter of the stock, whereas when it feathers out we do not have all the stock under there and the machine does not measure it all, whereas we do when we measure it electronically. I think that must be the cause. That is the only thing I can figure out. The Uster and other electronic devices do give you a slightly lower variation reading than the Saco-Lowell.

Question: This is all one-process drawing?

Mr. Whitehurst: No, not all of it. It is one and two. Now, under favorable conditions for opening and picking and for carding, before drawing, the one-process is successful in a number of plants, with as low variation as you can get from two-process, by testing, including this method. Even the look or sheen of the material after it is woven is comparable. So it is being done successfully in a number of plants, and it is very economical.

Mr. B: If you have one process of drawing and your variation is, say, 18 per cent, and you put that stock through two processes of drawing, what would be your variation or about your variation on the second process with your system?

Mr. Whitehurst: About nine times out of ten it drops one or two per cent. Sometimes it will exactly equal it. I think it is all caused by the different variations in the mixing and carding before drawing.

Mr. C: What is your nep comparison on this new drawing, as compared with the old-style drawing? All of us know that the more we draft stock the more neps we shall create. Most of us have been using a composition top roll; and this is metallic, top and bottom, and it should make some difference in the number of neps it will make.

Mr. Whitehurst: I was recently in a laboratory that made a test on it. There was a decrease in neps of 3.5 per cent in operating this equipment at 190 feet, versus a cushion-type roll. They tried it on one and two-process; both the same draft, not the same speed. This is the theory of the laboratory—they claim the flexing of the flutes helped to loosen the little burs and other trash that are in the stock. The foreign matter that is jerked out by the under clearers is much more noticeable after being run through a metallic than it is on the cushion-type; and they claim they did get a 3.5 per cent reduction, which is quite a little bit, in neps.

Mr. B: That is single against single and double against double?

Mr. Whitehurst: That is right. I believe the 3.5 was on the single, and 1.2 on the double. Their theory is that this process helps to loosen the trash, and it falls out.

Question: What effect does that have on the length?

Mr. Whitehurst: I think it does increase slightly. We have had several fiber-selection tests made, and I think it does slightly lengthen it by paralleling the fibers rather than just merely flexing them. But there is no great amount of length increase in the fibers from the metallic type over the cushion type that we have found yet.

Mr. D: What have you found to be the limit to which you can go in the card sliver that is passing over the two rolls? Most of us use a 56-grain card sliver. You can keep increasing that weight and get up to 70 grains, but the first thing you know the stock is so thick in there that it raises the top roll and causes bad work. It cuts the staple. Now, you say that on this the rolls are held separated the same distance all the time. What is the weight to which you can go in the card sliver before that space is closed up and it endangers the sliver?

Mr. Whitehurst: There are a number of cases where this equipment is being used in which the card sliver is from 70 to 72. We have experimented up to 85 grains. It is satisfactory up to that. You see, this top roll has no weight on it at all; 85 grains is about its capacity. Now, the number of ends does not materially affect this, since these flutes are long; they are 10.5 inches long.

There is another thing I should like to bring out. In closing the fibers up, in bunching them, you lose breaking strength, for some reason. We do not know why. We are not able to tell what is taking place; but you lose strength if you bunch the fibers up, especially if you run at high speed. Whether that jerks the ends off or friction causes it we do not know. You get the most efficient results by spreading the fibers out rather than bunching them up.

Mr. E: How does the roll setting compare with the setting of conventional metallic rolls?

Mr. Whitehurst: You set them closer. The reason for that is, of course, in setting mechanical rolls, the collar has a tendency to lead the roll backwards or forwards, depending upon what the relation is, whether large or small. In cases where it has a tendency to lead the flutes backward on the front roll and forward on the second one you can get them close enough so they will break the fibers. On this the top flute shifts backward and forward as the stock gets heavy and thin. On the other method, where you have flutes with heavy weights on the rolls, you would be actually closer in setting, so we have always had to be careful not to get close enough to break the fibers. Here you are depending on a crimp to hold it. It shifts to hold the stock. That is why you can run different weights on it, and it does not break the fiber. That is why you can run light stock on it, and higher too. We do not recommend higher than 85 grains, since that is the limit of the flutes.

Mr. F: Have you tried running lap on it?

Mr. Whitehurst: Yes, we have. It is not too satisfactory for lap, for two or three reasons. We have found that in putting lap on, if one sliver is heavier than another the only thing that sliver can do, if it is induced to pull forward faster than the one beside it, the only thing it will do is to stretch a thin place in it. In making

Eastern Carolina S.T.A.

The accompanying paper by Mr. Whitehurst was a feature of the carding and spinning discussion section at Erwin Mills Auditorium, Durham, N. C., Oct. 13, when the Eastern Carolina Division of the Southern Textile Association held its Fall meeting. Sam G. Riley, superintendent of Pilot Mills Co., Raleigh, N. C., and vice-chairman of the division, led the carding and spinning discussion.

Mill operating executives interested in winding, slashing and weaving problems had their own discussion section under the leadership of J. E. Shaw, assistant superintendent of Rosemary Mfg. Co., Roanoke Rapids, N. C., and chairman of the Eastern Carolina Division. A report of this will be found in the "Warp Preparation and Weaving" section of this issue.

The general session which preceded the two discussion programs heard David Clark, editor of TEXTILE BULLETIN, speak on "Textiles in Europe."

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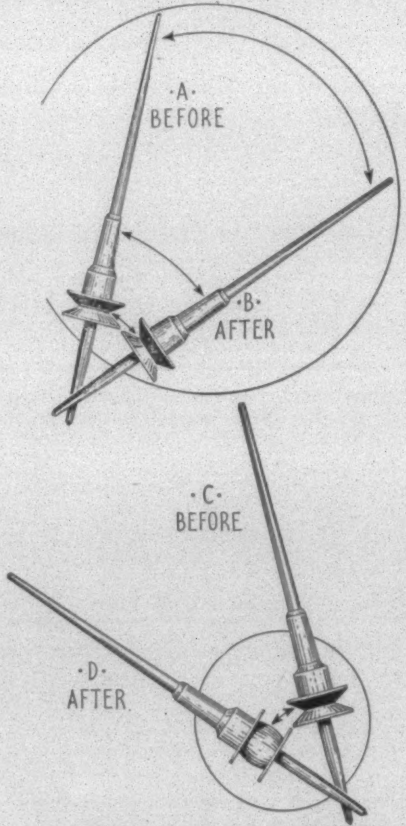

Sketch A. This spindle is badly worn. Note the wornout top, acorn and drive . . . Now look at spindle (B) . . . the same spindle reconditioned by GOSSETT-MASON master technicians.

Sketch B. The worn top has been cut off and a new piece of spindle steel butt-welded onto spindle blade and the top ground to specified size. We also build up the worn top with hard chrome plate and grind the top to size specified. After retopping blade, if necessary we put on a new whorl (made by GOSSETT-MASON).

Sketch C. This is a conventional band driven spindle. Mill specifications called for a tape driven spindle so, GOSSETT-MASON technicians converted at a fraction of the cost of complete spindle replacement.

Sketch D. We removed the band driven whorl and put on a new GOSSETT-MASON tape driven whorl. Then we arranged the band driven spindle base so that it can be used with tape driven spindle. Takes know-how and equipment plus skilled technicians.

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WEST FRANKLIN AVENUE • PHONE 5-4661 or 5-0142 tests we found that the lighter one traveled much faster than the heavier stock. We decided what actually happened was that the thin sliver was slipping through the flutes until it got up where something would hold it. So, if you have a lap, if you have thin fiber it is going to stretch it because it can not move up as it would out of a can or creel.

Mr. D: Did you say what the diameter of the rolls is?

Mr. Whitehurst: All four rolls, bottom and top, are four inches in diameter.

Mr. H: You were speaking of those metallic rolls at the top of your drawing. What drives that top roll? You say it is floating there.

Mr. Whitehurst: It is dropped down in the other flute.

Mr. H: The flutes are driving it, then, aren't they?

Mr. Whitehurst: Well, it seems that is so, but actually it is not. I will tell you why. The pulling or drafting of the fibers is what limits it. That only limits it to keep it from pulling too far one way or the other. You have to have some weight to keep it from hopping up. You have to have weights on the rolls to keep them from hopping up.

Mr. I: I understand that there is a device being tested—a device to bring up the bottom of the can and bring up the stock.

Mr. Whitehurst: That is being tested now. There is a spring under the false bottom of the can that brings up the stock.

Mr. J: What is the total draft on this?

Mr. Whitehurst: Sixteen is as high as we have been able to go. We recommend, on carded stock, from eight through 12. Of course, that has to be regulated by the size of your card sliver (or the weight of it, rather) and the number of ends that you put up in the back. The square root of the draft is the total draft of this particular zone, regardless of whether you are drafting four or drafting 16. I am speaking of the front drafting roll, between one and two. The square root of 2.5 per cent of the total draft, plus one whole number, is the amount for the back drafting zone.

Mr. F: You have to figure that from the different gearings on through and put them together, don't you, to get the total draft?

Mr. Whitehurst: I say you have to take 2.5 per cent of the total draft. That comes out in a fraction, so you save to add one whole number to it to get the carry-over from one roll to another. That is true of all stock, whether it is cotton, nylon, rayon, or what. It is within two or three per cent.

Mr. C: How does the slippage compare there with the old weighted method?

Mr. Whitehurst: Let's take a good grade of cotton that is opened properly, picked properly, and carded properly—or let's say it is done well. The theoretical draft will almost exactly equal the mechanical draft every time. Now, with a very low grade of cotton and shorter staple the mechanical draft is slightly greater than the theoretical draft. With a long staple and on rayons the mechanical draft is slightly less than the theoretical. It just reverses itself in different qualities and stock.

Leaders of the Eastern Carolina Division, Southern Textile Association, ***left to right:*** **J. K. Bruton, Erwin Mills, Inc., Erwin, N. C., executive committee member; Joe P. Hughes, Eno Cotton Mills, Hillsboro, N. C., secretary; J. E. Shaw, Rosemary Mfg. Co., Roanoke Rapids, N. C., chairman; A. M. Moore, Erwin Mills, Durham, N. C., committee member; W. A. J. Peacock, Borden Mfg. Co., Goldsboro, N. C., committee member; and S. G. Riley, Pilot Mills Co., Raleigh, N. C., vice-chairman.**

Question: What is the shortest setting and the widest setting? What is the shortest staple you can run?

Mr. Whitehurst: Well, we are running comber noil on it, two-thirds comber noil and one-third one-inch stock. In three or four different mills they are operating now on seven-eighths cotton. By the way, that is single-process, too. The longest staple we have is three-inch three-denier pure nylon. We have a number of installations on two-inch rayon and a few installations on some Sea Island, and so on. So we have operated from seven-eighths through three-inch, all with the same diameter roll.

Chairman Riley: The next question we have for discussion is "What have you done to reduce neps?" The subheading "A" under that question is "Opening and Pickers," and we have these topics: (1) Type of beaters; (2) Beater speed; (3) Fan speed; (4) Type of grid bar and how many. Have any of you cut down your beater speed?

Mr. E: We tried lower beater speed but decided to go back.

Mr. L: We have found over a period of time that we agree on this or that or the other—the doffer speed and what have you; and what you do one time will not reduce neps invariably. But we have found one thing will always reduce neps on new cotton, and that is reduction of the oil fed into the beater chamber on the picker. That will invariably reduce the number of neps.

Chairman Riley: Why don't you just cut out oil on new cotton?

Mr. L: Well, you need a little bit to hold the lint down. We went to 600. We could not see that it helped us or hurt us. We ran that way for about three months—long enough to tell.

Chairman Riley: Did you make actual counts or were you just going by the amount of trash you took out?

Mr. L: We did not make actual nep counts. We were going by how it looked.

Mr. A: We talk about controlling them, not reducing them. We check every bale of cotton that goes in the mill, and we regulate the process by the fineness of the cotton. Fine-fibered cotton will make more neps than coarse-fibered cotton; I think you will all agree with that. To that end we try to equalize the stock going into the mill. Last year the cotton was fine; the year before that it was not. We had to buy a lot of 1948 cotton to try to level ours out. Another thing; we replaced our blade beater with a Kirschner beater. We took the blade beater out on the picker and substituted a Kirschner beater for it. That has helped us a great deal.

Chairman Riley: We always worry about curled cotton. Do you find that it curls with the Kirschner on the back?

Mr. A: No. The neps showed a very distinct improvement. If they had not we would not have gone to it. The speed was 900. This is a three-blade Kirschner beater.

Chairman Riley: Has anyone tried the new universal grid bar? I understand that that is adjustable, but I have not tried it yet. That is something new, and I guess no one has had a chance yet to try it.

Mr. D: We have an adjustable bar, the regular Saco-Lowell. We find that the adjustable grids on the Saco-Lowell are very far superior to the old grid bars.

Chariman Riley: Can you adjust them both as to closeness and distance from the beater?

Mr. D: The adjuster on those is so constructed that when you open and close the grid bar it does not vary the distance from the beater. The adjustment bar is so fixed that when you open and close the triangular grid bars it does not appreciably vary the distance. Another good feature is that when you open and close the grid bar it more or less controls the air current at the same time. The air current is so regulated that when you open it the right amount of air goes through; and in addition, the r.p.m. of the beater is sufficient that it will kick the particles out through the grid bars at the same time. You naturally govern the opening of the grid bars by the amount you knock out without knocking out good cotton.

Chairman Riley: They claim that this will take out more motes without getting out any good cotton.

Mr. D: The gentleman over here (Mr. L) brought up a very interesting point in regard to the oil. That does have an effect on the neps. What I am interested in is the best place to spray this oil. I believe he said he sprays it on the beater section; I do not know which beater. We ran into trouble in spraying it into the beater section. We ran into difficulty with the oil caking and have not found a really good place to put it yet. I should like someone to help me out on that, since neps are involved and I am not off the subject. We have a dust-removing fan. Is it practicable to do away with the dust-removing fan and just put the oil on there?

Mr. M: With the wiping system the oil seems to cake a little

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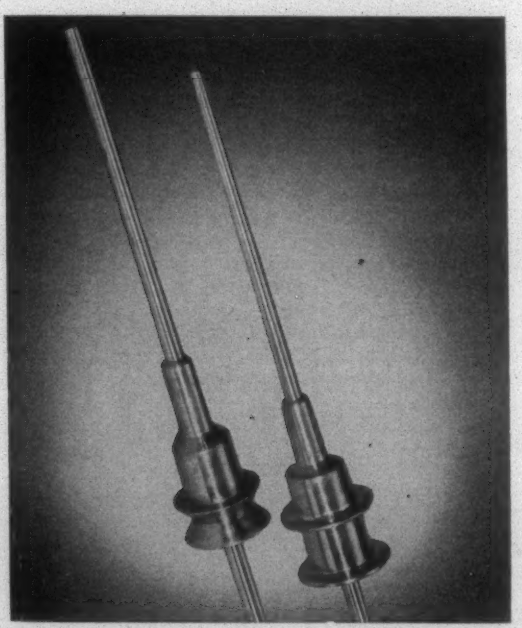

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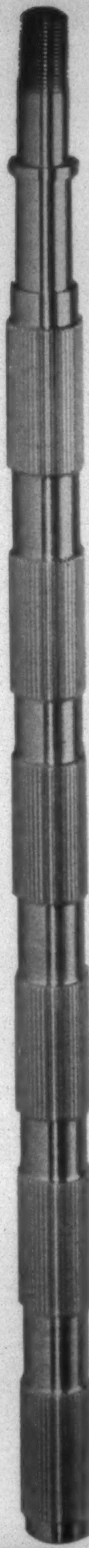

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worse than when it is sprayed. With the spraying system the stock has a chance to absorb a little more of that oil before it goes through, whereas with the wiping system it has not.

Chairman Riley: In other words, you think it should be put on in the hopper.

Mr. D: We have just a nozzle spray system. We use one-fourth of one per cent, but often that gives us trouble.

Mr. L: Does it retard your cleaning of the cotton when you spray it in the picker hopper or the opening hopper?

Mr. D: No, it does not seem to, but it cakes up.

Mr. D: I know some people put it in the feeder hoppers; and that is the proper place for it, in my opinion. But we have dust collectors on there that draw the dust out into a bag. They come equipped that way, unfortunately. I think we would do better to take those out. But what is the best place to put the oil in I do not know.

Chairman Riley: We put it in the hopper.

Mr. A: We had some folks come down to the Institute of Textile Technology at Charlottesville that brought up the question you mention. They said that if you put the stock under a fluorescent light you see little patches of oil here and there. The reason is poor dispersion. The oil is not dispersed. At our mill we ran up to 2.5 per cent with reasonable satisfaction. We pulled out some of our laps and put them under a fluorescent light and found that stain, and that indicated to us that we were not getting proper dispersion. I do not know what you should do, but we sacrificed our exhaust system and put oil in there. This fellow at I.T.T., without mentioning any mills, said we carry through some of that oil to the finished yarn. With the average mill it is pretty hard to find any of it on the finished yarn, and I think that is a pretty good plug for putting it on. If you put it in you get, very definitely, less dust in the card room. If you put it in then you have other factors to deal with.

Chairman Rileys Let's take up the first question on carding: "Describe your grinding schedule. What effect does it have on nep control?"

Mr. E: On our grinding schedule, we started grinding very light and often. We grind our cards every 150 hours but set our cards only every 450 hours, and we find a very definite improvement. We used to go around the room and look at the card web and say "That card needs attention." But we find that if you can go and look at a card and see that it needs attention you have let it go too long. We think you should have a definite grinding schedule, but we think you can go and check a few cards and see whether they need setting and then set them accordingly. We previously were grinding and setting about every 13 days—that is 13 24-hour days. We have one man who grinds; he does nothing but grind, and we have another man who does nothing but set. The card grinder took care of the breakdowns in the picker room. But now, rather than interrupt our grinding schedule, which we think is more important at the moment, we pull off the man who does the setting and let him go to work on the pickers, because it is necessary to keep the cards sharp. I think a sharp card poorly set will do better work than a dull card set perfectly.

Chairman Riley: In other words, there is really no relation at all between when you grind and when you set. That is a new thought to me.

Mr. E: We grind 16 cards a day, but we set only six. The men on the first and second shift each grind six. There is a man on each of those shifts doing the setting. He sets three on the first and second shift, but we do not set any on the third. On the third shift, where the man is alone and takes care of the breakdowns, he grinds only four.

Mr. D: You say you grind 16 cards a day. How many sets of rollers do you use?

Mr. E: Six sets of rollers.

Mr. D: How long do you grind a card, then?

Mr E: The average will probably run around four hours. He puts a card to grinding and goes ahead and puts up his other rollers. Then he comes back and does the setting, but the only setting the card grinder does is the doffer to the roller.

Chairman Riley: You seem satisfied that that has reduced your neps. There is an interesting report from the Cotton Research Clinic on increases in neps on the card. The writer claims that ten hours after grinding a card the neps double and that after two hundred hours they double again. So he has cut down his grinding time from two hundred hours and has reduced the nep count.

Has anyone tried the high licker-in speeds? Didn't some of you run some experiments on that?

Mr. O: We did try that. I think 700 was about as high as we went on licker-in speed. We do not know enough about it, really, to say, but we do feel that there is some improvement on neps with high licker-in speed. But we found that you have to pick your clearers on your spinning frames only about half as often. We made enough roving to put on two spinning frames, and one of the spinners noticed and pointed out to the overseer that she had to pick the clearers only about half as often with the high licker-in speed. That was interesting to us, because I had not heard anyone refer to it.

Chairman Riley: Let's go to spinning now. The first question is: "How do you find how much weight you have on a spring-weighted top roll?" It seems as if that should be under carding.

Mr. E: I think I am responsible for putting that question in there. We have the spring-weighted top roll, but we do not know how much weight we have on each roll. I understand there is some kind of instrument for checking that. I think Mr. P can tell us about it.

Mr. P: There is a concern in Rhode Island that is putting out some contraption, but we have not put it on. We are in the same boat; we know when there is some variation, but we do not know what it is. So we want to find out.

Chairman Riley: I have seen a contraption; a man had it in our plant. It depended on a spring-weighted scale to do it.

Let's go to the next question, No. 2 under spinning: "What improvements have been made in long-draft spinning? (A) Describe the different types of V pin you are using." Has anyone tried that —the new type of cradle?

Mr. D: Some of the mills have a good many frames on this. We have been experimenting with it and find that it is panning out pretty well. We have tried it on frames running 40s, making 40s from single roving. We first experimented with whatever type of ring we could use. We went up as high as a 2¼-inch ring, then 2⅛, and down to two-inch. We are now running the frame on a two-inch ring. The ends down on it since we have come down to the two-inch ring have decreased so that we are close to 40 ends down per 1,000 spindle-hours, but we need to decrease it more to compare in quality with our other spinning. The other spinning runs around 25 ends down per 1,000 spindle-hours. We have experimented with different weights of roving—1.30, 1.35, 1.40; and with 1.40 we find we get better results. We have tried this on 30 and 35 draft. If we hold it down to a draft of around 29 we find we get the best results as far as ends down are concerned and other running qualities.

Chairman Riley: Are your back and middle rolls adjustable?

Mr. D: The back rolls are not adjustable on our particular frames.

Chairman Riley: But you are able to go up that high?

Mr. D: Yes. One thing we did was that we took the bearings off and planed off some of that bearing so we could bring the rolls closer together. What it amounts to is bringing the aprons closer together. It is purely a system, and nothing else, of holding the two aprons together . That is, you separate them and use a four-mm. pin or a five-mm. pin, as determined by the number of the hank roving. If you go down to 1.40 hank roving the diameter of the roving decreases and you have to close the gap between the two aprons. Then you would use a four-mm. pin. That bite of the two aprons together, gripping that sliver, is what it amounts to. The front roll is gradually pulling it out, and there is no slippage, and that is the secret of the whole thing.

Chairman Riley: Have you made any tests for breaking strength on that?

Mr. D: The breaking strength is better than on our regular work We have had it tested by the Uster tester.

Mr. Q: In discussing this high drafting, the ratio between total draft and back draft has changed so tremendously from what we are used to. I wonder if anybody has made any experiments in changing the break draft.

Mr. D: I did not change the break draft because I think the break draft on a regular frame is only about 1.25, isn't it?

Mr. R: 1.25 or 1.21, something like that.

Mr. S: We tried that, too, but found our break draft was only 1.13. We did a little better than 1.21 with a total draft of 30.

Chairman Riley: You found that with a shorter draft you were better off?

Mr. S: It has showed up better so far, with the Uster tester.

Chairman Riley: Are you able to set the back and middle rolls closer together on your frames?

Mr. S: We experimented with setting the middle roll closer to the front roll.

Chairman Riley: You see, with this system that is coming out, on the new frames you are able to set any of your rolls closer. On old frames, of course, you can not do it unless you change them and buy the new system.

Mr. L: We have one frame of Whitin long superdraft spinning, and we were told that unless we go to drafts above 40 we need not bother with the break draft. I think that the conventional or regular break draft on the Whitin is 1.14 or 1.15. We were told that if we went to higher drafts we could change the break draft to 1.40.

Chairman Riley: There is another part to this question: "What type of apron do you use and why?"

Mr. D: Yes,sir. The thickness of the apron does have a definite effect on whether it is a four-mm. opening or a five-mm. opening. We tried it with some of our regular aprons and found the aprons did not hold up. I think Whitin took it up with the makers of the cork apron, and they have developed an apron now that is of uniform thickness. That is made out of different material from the other apron, to hold down the stretching qualities and also for durability, because this apron is under considerably more strain. On this basis we use a different type of apron from what we would otherwise use.

Mr. L: We have half a frame on leather aprons. They are very tight. You get a certain amount of chattering. Frankly, our breakage has been a little better. We would not turn around for the difference in evenness. Ours are only about a month old. I do not know what the results will be when they stretch a little.

Chairman Riley: What is the diameter?

Mr. L: I remember the diameter as being 1.23 or 1.273. They are the same as Whitin recommended, the same as the synthetic apron we are supposed to use.

Warp Preparation & Weaving

S.T.A. Slashing & Weaving Discussion

A MULTIPLE-CYLINDER attachment "providing unusual versatility in the production of fancy weaves at lowest cost on any dobby or head motion loom" was described and demonstrated by Ivar O. Moberg to the winding, slashing and weaving group gathered at Durham, N. C., last month for the meeting of the Eastern Carolina Division of the Southern Textile Association.

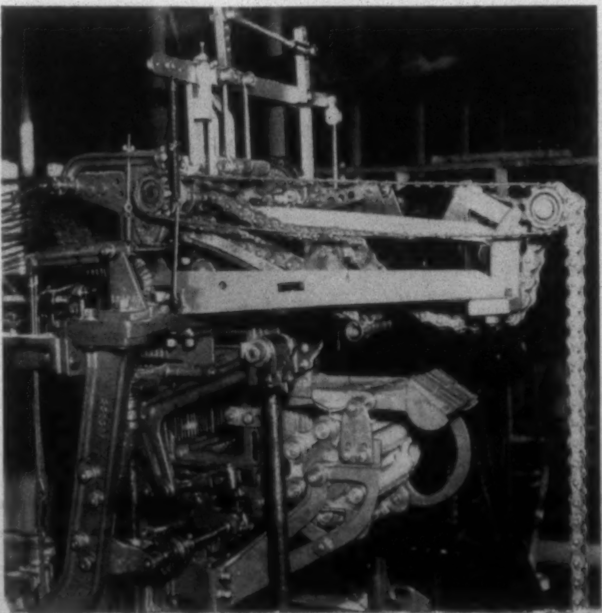
Mr. Moberg is a research engineer for Fieldcrest Mills at Spray, N. C. His invention is being manufactured by Southern Mechanical Products Co. of Greensboro, N. C., and is sold through Textile Specialty Co. of Greensboro. As noted, the discussion periods preceding and following Mr. Moberg's presentation were led by J. E. Shaw, chairman of the S.T.A. division.

According to Mr. Moberg, the multiple-cylinder attachment was the culmination of his efforts to secure some method by which many fancy weaves could be undertaken without the use of high-cost equipment. It was first used in the manufacture of the channel weave for electric blankets and sheets, but it is adaptable to the manufacture of fancy border blankets, table cloths, fancy cross border towels, bedspreads, curtains, draperies, etc., where several basic weaves or combination of basic weaves occur at great intervals.

The multiple-cylinder attachment is applied to any dobby or head motion to produce many jacquard type effects. An advantage cited for the attachment is that it permits the loom to operate in the conventional manner when desired without necessitating the removal of the attachment.

The multiple-cylinder attachment consists of a revolving magazine holding six or eight aluminum pattern cylinders. These cylinders are driven by a planetary gear motion revolving on their own axis as well as moving around intermitently in their orbit when called upon to do so by the box chain of the loom. Each pattern cylinder has a series of pegs which operate and control the harnesses directly without a pattern chain. Each pattern cylinder may carry its own complete weave or all the cylinders may be combined in one weave. For example: an attachment having six cylinders with a maximum filling repeat of eight picks per cylinder will produce a maximum filling repeat of 48 picks if single indexed and 96 picks if double indexed. It is also possible to repeat any given weave as desired or required by the finished fabric.

It has been proven, says Mr. Moberg, that with the multiple-cylinder attachment applied to either a dobby or head motion, the capacity of these harness motions is greatly increased. Thus patterns can be produced that otherwise might require a jacquard. Special tie-ups frequently required with jacquard harnesses which cannot be used for the next succeeding weave are eliminated; with the multiple-



The multiple-cylinder dobby attachment developed by Ivar Moberg.

cylinder attachment changing of a weave requires only a few minutes.

The installation cost of the multiple-cylinder attachment is frequently fully paid by the savings in one set of jacquard cards which might otherwise be required, or the change in the tie-up of the jacquard harnesses, says the inventor. The multiple-cylinder attachment is ruggedly built to exacting standards and can be installed in a very short time to any dobby or head motion without extensive equipment or modification on the loom.

Discussion

Chairman Shaw: We will get right into this first question under the subject of winding: "What is your cleaning schedule on your winders or spoolers?"

Mr. A: On our Universals we have a regular schedule of cleaning and it is done once every four hours. Each individual winder is gone over so that the grease and lint is wiped off; we do part of it on the first shift, part of it on the second shift, and part of it on the third shift, and do it once a week.

Mr. B: We clean ours every eight hours. We blow ours off with an air hose.

Mr. C: We don't have any particular system of cleaning our bottom winders. We blow off the frames. We do clean the individual heads of cobwebs and straighten those out. We have 17.75 warp, 12.75, 6s and 9s in filling. We run about 17½ heads per minute on our winders.

Mr. A: We have on our bottom winders more or less of a general regular schedule for cleaning, and I'm talking about the Universals. We blow the fly and lint off that has accumulated. We had two gadgets made that we use, hooking to an air hose and we blow off the guide rolls, and all of it is done automatically; once you hook up the hose it takes about 28 to 30 minutes or three complete unit rounds of the winder on the head ends, then go back to the tail end of the winder and blow the other head off with the same apparatus. Of course, I have reference to cleaning the outside of the unit. So far as the inside of the unit is concerned, that is done periodically, so many of them being done per day over a period of six months, in order to get over all of them. Periodic inspection is made, and that's about all that we do in the way of cleaning.

Chairman Shaw: There is one thing specifically that I would like to have some discussion on. In talking with the Abbott men when they come around for periodical inspection they are always telling us that we are not doing enough cleaning. However, I think that the amount of cleaning you do depends largely on the yarn count you are running and, of course, how much money you want to spend for cleaning. Now I want to know how many of you men take off and get the grease and lint and dirt away from underneath, because you know that a lot of times just blowing it off wouldn't do that any good and if it were dirty would surely cause you to do a lot of bad packaging.

Mr. A: Cleaning three heads per shift we're supposed to get around over all of them every six months, and that means taking them apart from the inside out, putting in new oil and grease and everything of that sort. We have two winder doffers, one that oils and sweeps and blows off at each shift, and have three winder hands that do the cleaning up that is done by air hose and rags; the winder hand takes a knife and cleans off the accumulated lint on the guide wires, balance wires, and blows off all that it is possible to blow off with air, and then gets the grease off, and when he has finished that a girl takes the rag and wipes it off, the plates and all; they go over the complete frame, the cross-shaft, the shaft going to the automatic gear, and all that, all of it has to be cleaned out and they have to use a knife or hook before the accumulated grease and stuff can be removed. It takes approximately two to three hours for those three boys we use, and the one girl, to clean one; we have five winders, three of them 158 and two 182 and it takes from four to 4½ hours to clean them.

Mr. D: We use an automatic cleaning system on our Barber-Colmans, blow off with an air hose in the mornings, at noon and in the afternoons; have a regular crew for the cleaning; it is done just 15 minutes before starting time; 15 minutes before stopping time we stop and let the cleaning crew blow it off and the crew on the second shift comes in and they complete the job about 15 minutes before they go to work; they're blown off again then.

Mr. E: We're running 20s and 30s single yarn on our Barber-Colmans and we blow them off once every four hours and we give them a thorough cleaning on week-ends.

Chairman Shaw: What types of automatic equipment do you find best for rewinding filling?

Mr. F: About two years ago were having a lot of trouble with rewinding filling, found that it was necessary to go to a Schweiter. We are running 6s and 9s and after we changed over we found that it was decreased all the way; we're running about 60 per cent on the 6s and 40 per cent on the 9s. With the fine spun yarn we're getting approximately 12 runs per bobbin and we get now 12.3 per bobbin; have been able to set up a tension on those pullers very well and we have hardly any trouble with the filling itself.

Chairman Shaw: Mr. H, tell us about your cleaning of the Schweiter quiller.

Mr. H: We blow our Schweiters off about every 30 minutes. We also have a schedule to completely dismantle the head about every six months or twice a year; they are washed out and cleaned up and we find that we are getting very good filling, never have any sloughing off on the looms and we get about 30 per cent more yarn on the bobbin and the weave is much better, we have less trouble and get a better bunch. You can set the bunch, a perfect bunch on the quill. We have found it very satisfactory. However, I think it is more satisfactory with the coarse yarn counts and fillings; I mean by that that I usually have a better saving on the coarser yarn counts.

Mr. G: I would like to know what the difference is in running 9s, 12s or 15s yarn on the Abbott as compared with the Schweiter.

Mr. I: On our 15s yarn, and we haven't had the quiller very long, our experience has been very good so far. On the Schweiter the job load is 60 units—two 30-spindle machines. And on the Abbott we have 160 spindles, one operator. Based on 40 hours the actual pounds run of the Schweiter was 3,343 and on the Abbott 5,675. Now you have a disadvantage on your Abbott because of your piecer bobbins because every time the unit goes through the head it is going to the doffer and there is nothing on there but the bunch, and so that's the disadvantage there. Then on the Schweiter we have a magazine creel, you either have a piece of a package or you have to run it out and make up the piece of the bobbins, but our experience so far has been such that on our Abbott we have maintained about 94 per cent full bobbins coming off that machine. We can't catch them all but we do get 94 per cent full bobbins. When a piece of waste gets on one of the brushes then when it goes through the head this quill may come back all the way through empty and have to go back through the head again, but through our checks we have found that we get 94 per cent full bobbins from this quiller, which we believe is pretty good. The winder tender can piece up some, but we do have to take out some combs, just slip the weights off of them and rewind them, so that is the disadvantage there, over the Schweiter, on that quiller. But as far as cleaning time is concerned, the time is about the same all the way through.

Keeping Water Out of Air Lines

Chairman Shaw: Now to the next question: "What is the best way to keep water out of air lines?"

Mr. K: I don't know of anything that you can do about it unless you put separators or filters in; they do quite a bit of good, and then you must drain your lines and the tank; that's the best thing I know to do about it.

Chairman Shaw: How do you get the air? I know that you use compressors, maybe the Denver, or some other, but I want to know where you have yours located and where does the air come from? I have heard quite a bit of discussion on this subject on the outside, have heard some say that they take the air in from underneath the building, while others say that they try to get the air at about the same temperature of the air on the inside of the building, for of course we know that any change in the temperature of it is going to cause condensation. Do you have a central room for your compressor, or how do you handle it?

Mr. K: We do not have a central room for them. They are

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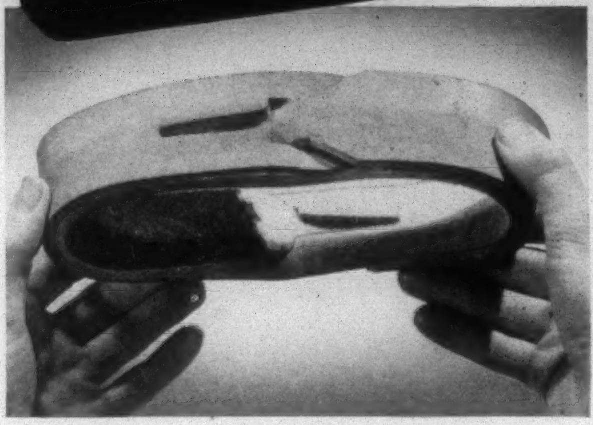

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scattered all around. We have the tanks on the outside in the open and we pull the air in from outside.

Chairman Shaw: Well, your air then, as it leaves the compressor, is bound to be cooler and the tanks when compressed are naturally going to heat somewhat. How often do you men drain your drainage traps in the different departments?

Mr. I: We drain ours every 24 hours.

Chairman Shaw: Is there any difference in the amount of water you get on the different floors, on the first, second or third floor?

Mr. I: Yes, there is with us. On the first and third floors we get about half a cup, but on the second floor we get five quarts. We have 16 heads on the first and third and get about half a cupful, while on the second floor we have 22 outlets and we get about five quarts every 24 hours, so that probably makes it worse.

Mr. L: We have a central compressing room, and they have tanks there that take the water off, and they drain those about twice every eight hours; then, each department has a trap, there being one in the winder room and one in the slasher room; those tanks are drained twice every eight hours.

Mr. M: What we're talking about is a trouble that is almost universal. Everybody has it, it seems, and we have been confronted with this trouble for a long period of time. Our compressors are on the first floor and we try to blow the main tank empty at least once a day, so as to get out any water that has settled in the bottom of the tank. We recently installed a 40-gallon hot water heater tank—that is really all it is—in which the air goes in at the bottom and of course there is a trap that goes out to the drain to catch the condensation. And following on up, we have traps in the spinning room and elsewhere, too. We have pneumatic rack pullers that run by air; if any water gets on those pneumatic rack pullers we have trouble, so we have traps on every frame. I think the idea of getting the trap, of putting the trap as close to the source where you're going to use the air is important and one of the main points to watch; by having them there you have a chance to get it out just before you use it. In spite of all we can do we still have some water, of course. But we don't have nearly as much as we used to have.

Chairman Shaw: We use high-pressure compressed air at a pressure of about 70 pounds per square inch, used primarily for cleaning, supplied by two large Gardner-Denver compressors located at a central compressor room. The heat resulting from compression is partially removed from the air by passing it through a water jacketed after-cooler and then into a large cylindrical tank or receiver. Water released by the air accumulates in both the after-coolers and the receivers. Traps are placed on each of these to drain off this water. The air, which is practically dry at the receiver temperature, is piped from the receivers to the various parts of the plant where it is needed. Traps are placed at the ends of long runs of pipe to remove water accumulating in the line as a result of differences of temperature. Since a cooling of the air will cause a condensation of water held in the air in vapor form, any long air line is liable to become partially filled with water, especially if the volume of air flow is small. For this reason, it is advisable to blow the water out of a line before using it. On the quill strippers in Mill No. 3 a combination air separator and trap is used. The separator causes the entrained moisture to precipitate in the bottom of the separator. This accumulated water is then drained off by the trap.

Now we'll move to the next question: "Describe your method of weighing and handling starch."

Mr. N: We keep our starch stored in a room down below the slasher room; in that room we have a large hopper that holds 75 or 100 100-pound bags of starch and in the bottom of that hopper there is a screw device that pushes the starch out onto a conveyor belt which takes it upstairs to the slasher room where it is dumped into the hopper up there. Now, on the hopper there is a scale and the man who looks after the size sets that scale to whatever number of pounds of starch he wants to go into his formula, starts the machine operating and that starting starts the screw and conveyor-belt and everything operating and when the correct number of pounds of starch is dumped into the hopper up there then the machine automatically cuts off and then he has to load the hopper by hand; it is taken over to the size kettle and dropped in the kettle. The water that goes into the size formula is conveyed through a meter which he sets; if he wants a hundred gallons of water he sets the meter at 100 gallons and when the 100 gallons has run into the tank it cuts off automatically. The main advantage of this type of device is that it helps to reduce errors made in getting exact weight and measurements.

Chairman Shaw: What is the size of the hopper in the sizing room?

Mr. N: I judge that it would hold more than 100 pounds. We still have to open our 100-pound bags. We have a man who looks after the size and it is his job to keep the hopper full at all times.

Chairman Shaw: What kind of a knockoff is it that you were speaking of that controls your weights?

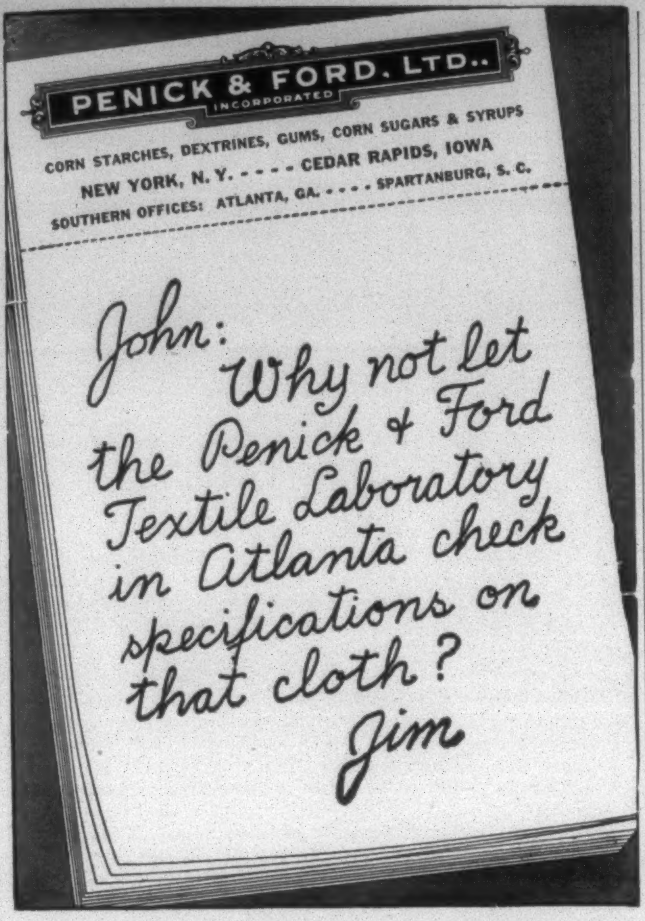
Mr. N: It is just electrically operated so that it cuts off automatically and when it cuts off it stops the conveyor, stops everything that is in motion, at the same time. The scales have a wire running into them and it is controlled electrically and operates automatically.

Mr. O: We have something similar in our basement under the slashing room. It holds three 100-pound bags of starch and our mixing kettle upstairs holds 360 gallons of size. We have a conveyor to take it upstairs; it holds about 400 pounds and we cook 330 gallons of finished sizing at one cooking. The conveyor and the whole system is a wonderful system. It is not only economical but a large gain comes in in the handling of the starch in the starch bin downstairs, so that we do not have to be running down there to fill it up, don't have to bother with that, and so we gain in that way. And it is very clean. Our slashing room is one of the cleanest in the country. In fact, I believe we have one of the cleanest slashing rooms anywhere in the South or even in the United States.

Chairman Shaw: How often do you take a lease? How often do you lease them on your schedule? I understand, Mr. O, that you released your warps every two hours; what yarn counts and what length sets are you running when you do that?

Mr. O: Anywhere from 14s up to 24s, the warps; that is all white yarn. On our 14s we have about 24,000 yards per set on the slasher; on the 24s and 28s we have 38,000 yards per set. We don't have any special time for leases but about every two hours if we see that it does need it it is done; you can generally walk along by it and see just by looking at it; we don't lease it all the way across, if there is just a break on the side, but about every two or three hours we lease the whole business. We figure our production rate

Ivar Moberg *(left)* points out a feature of his multiple-cylinder dobby attachment. *At right* are mill men who attended the winding, slashing and weaving discussion which was a part of the Eastern Carolina Division, S.T.A., meeting at Durham, N. C., Oct. 13.



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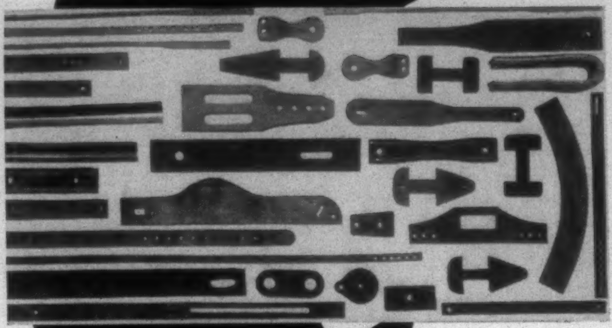

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is 60 yards per minute, average; anywhere from there up to as high as 85 yards.

Question: How many ends in a warp does it run?

Mr. O: The 14s run 2,400 and the 24s run 3,664 on the 60-yard per minute basis; white yarns.

Chairman Shaw: In counting your warp in front of the slasher where you have several beams of the same color, Mr. L, how does your slasher tender handle it? Does he get the end of one beam or does he pick up one of one and one of the other?

Mr. L: We try to pick one off the rod if it is so we can, but lots of times you just have one color on the warp and you have to get it all off the same rod, as there is no end to go.

Chairman Shaw: How do you separate your ends? You're bound to have ends matted together; do you use drop-wires?

Mr. L: We haven't used drop-wires yet; sometimes we'll have stuck ends, of course. If we have trouble there we just go ahead and lease again. It takes two men to do it, one on each side of the slasher.

Question: Is that dry or wet?

Mr. L: Dry; it has been dried in the dye house. You lease at the beginning before you pull your sets off your slasher cylinder but that's the only time; if you have to do it again it takes a lot of time.

Chairman Shaw: Suppose you have bad warps, Mr. L, how do you notify your slasher man about that?

Mr. L: Each slasher man signs the tickets as he doffs the warp; his name is on the ticket in the weave room and if there is any bad work we take the slasher man out to the weave room and show it to him.

Chairman Shaw: We will now consider some of these questions under weaving, the first one being: "How do you control jerked-in filling?"

Mr. B: That, I would say, is just loom fixing from beginning to end; there are so many things that enter into it that I could hardly enumerate them all. The biggest thing to consider is the condition of the boxes and binders, your Stafford motions, if you're using such, or your cutter motions. To my way of thinking, it is strictly a loom fixing and maintenance problem and each change in yarn count or any of those things will bring forth problems that you haven't had in your preceding count, possibly.

Chairman Shaw: What do you have your loom fixer do, when there is a change of construction, before starting up the looms?

Mr. G: The only thing we do is to put a piece of flannel at the box mouth to keep it from tangling; that helps a lot.

Mr. R: We do not have any attachments to put on there to elevate or depress the idle ends as some of the men would like to have; there are some attachments on the market and one of them is made by the Steel Heddle Manufacturing Company and is known as the Harris separator; they're used in some of the box mills. Only recently a chap devised another attachment which he believes is going to help do the job. I understand he has a patent on this device; it consists of some wires that elevate the idle end to keep it out of the way of the active shuttle. I suppose about the most universal that has been adopted and put in use is to have a heddle frame to go up and down with the movement of your box which will carry a cord or a heavy filling end, to carry up those idle ends and hold them up out of the path of the active shuttle; I guess that is about the most universal plan that is used in the box mills for that purpose. Most all loom fixers have made various gadgets from time to time; some of them are very effective, having different crooked wires and different holders. And, as the man in the front row mentioned a moment ago, many use the flannel and it is very effective in keeping those ends out of the way.

Question: Is there anybody present that could say about the 4 x 2 tri-color loom, how they handle their problem?

Mr. R: I presume the man asking the question has reference to the magazine end of the loom. We have thread-placers, as we call them, which are attached to the top of the boxes, the box fronts, which at the time of transfer push that filling out and engage it with a hook. They are available.

Chairman Shaw: The next question is: "What is the average life of your shuttles and what steps do you take to see that old shuttles are not replaced unnecessarily?" That is a good question due to the fact, at this particular time, supply parts are high in price, cost quite a bit of money these days, and I would like to hear a lot of discussion about it. How do you place responsibility for the replacing of shuttles? Some of you fellows answer up on that, will you?

Mr. S: The responsibility for the replacement of the shuttles is upon our fixers. We don't have the problem of shuttles being put in unnecessarily; I wish we did have that problem instead of the one of having to see that the fixers put in the necessary replacement shuttles when they're needed. Our system of replacement of shuttles is that our fixer will pick up the new shuttle in the supply room and each one is dated and the record shows what specific loom they're for; the supply clerk keeps the record of the loom number and the supervisor can any time later pick up the sheet and go right to the loom where the particular shuttle has been put and make an inspection of the loom; in other words, when a new shuttle is put in by the overseer or the assistant overseer of the weave room it is inspected, and we inspect it in detail from the rocker-shaft on up so as to see what the condition of all the parts is, the binders, the pickers and every part, see that those parts are in proper condition for a new shuttle to be placed on. Our average loom life for a shuttle, shuttle average life, is approximately 1,400 loom hours on coarse work, large shuttles and large packages.

Chairman Shaw: What speed?

Mr. S: 166 picks.

Chairman: Do you use dogwood or persimmon shuttles?

Mr. S: Dogwood.

Mr. T: The way we handle that is that the second hand oversees the shuttle replacements there in the weave room; he has the responsibility of that, the responsibility of seeing that new shuttles are put on when needed; I mean by that, the loom fixer will take the old shuttle to them and they determine whether it should be replaced; the shuttle is stamped with a number and it is dated and the record is kept in the supply room and when the shuttle is brought back it is recorded so that we can keep the number of loom hours on each one and in that respect we averaged last year somewhere around 3,300 loom hours per shuttle on our work with print cloth work and running 30 warp and 40 fillings; runs from 164 to 172. We use dogwoods.

Mr. U: Our record on them is not as good as that. We do not date ours and we can't tell exactly what service they do give; don't know just what we do get out of our shuttles since we do not use a system of dating them. The replacement of shuttles is left up to the head clerk or the second hand to see when the shuttles need to be replaced, and the fixer, but we don't date them.

Mr. V: I think we are all interested in getting longer life out of our shuttles. We keep a very accurate check on the loom hours of every part of our looms, not only the shuttles, but the pickers, and other parts, and on all those things we get from 2,800 to 3,000 hours out of our looms. One question I would like to ask is this: Is there anyone present who has been using the laminated type of shuttle, and by that I mean one made with multiple plywood banded together. I have been running some tests myself on that.

Mr. K: We tried some of them but they came apart where they were glued.

Mr. S: I would like for Mr. T to tell me, since he says he gets 3,300 hours out of his shuttles, what attention he gives his shuttles during that time, while it is running that length of time.

Mr. T: Well, our second hand inspects the looms each shift and in that inspection he takes into consideration the shuttle and the shuttle box, of course, to see that they are in good order and then the loom fixer checks the looms to see if there is anything wrong with them so as to try to catch trouble before we have a major breakdown caused by parts wearing out.

Mr. S: But I would like to know what particular attention you give your shuttles that gives them such long life, as far as greasing and polishing is concerned. Do you give them any particular attention that you could tell us about?

Mr. T: We take them out and polish them, and we use tallow on them and use real fine sandpaper on the rough places if there is anything of that nature there. That is done during the inspections. If we find one that needs any attention it gets it; otherwise, we don't give it attention.

Chairman Shaw: Do you have a regular inspection team or crew?

Mr. T: No, sir, that is done by the regular loom fixer and second hand; they go over the job through the rotation period. I think the thing that helps most about it is the use of the dating of the shuttles and putting the loom number on it, and then at the end of each month I see the records in the supply room myself and check them and if I see something that appears to me to be out of line I take

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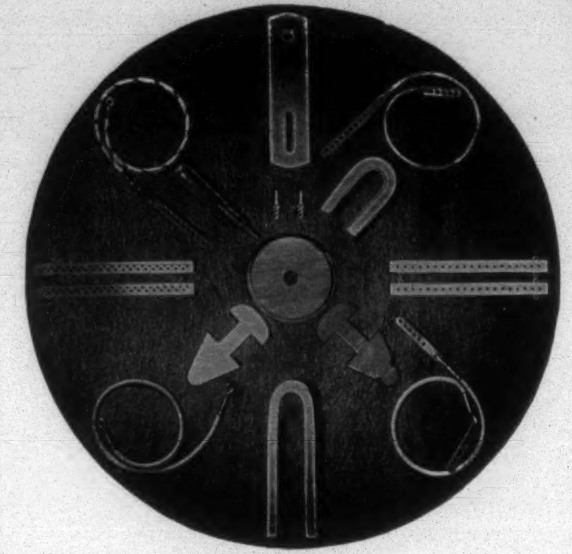

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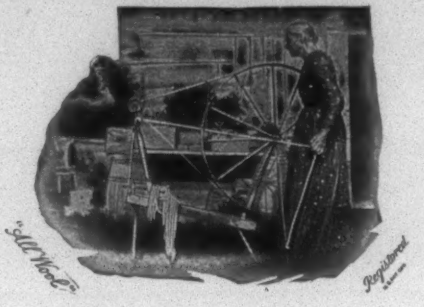

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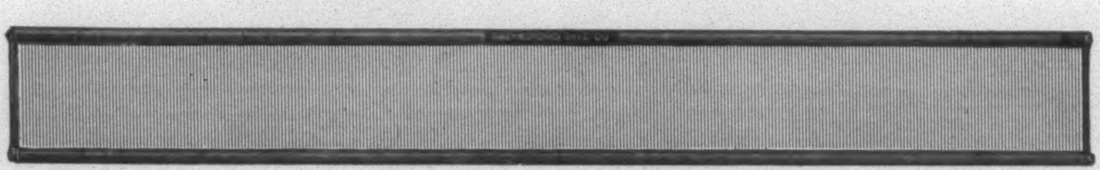

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it up with the overseer and he handles it from there on. In this way we have brought about longer life in our shuttles, getting longer runs out of them.

Chairman Shaw: Can you give us anything on this question "How do you cover binders?"

Mr. W: We clean our binders by using a steel brush and on the wooden binders we take a tool and scrape the upper leather and on the wooden binders we use a very quick cement, fasten one end and put the opposite end in a vise and pull it, stretch it; we do not use clamps. The cement we use is a very quick cement which allows us to put them back in use in 15 minutes and, as I said, we do not use clamps. We use a burnishing ink, which has a wax base, and finish the face of the leather and on the edges we use a shoe finish wax which leaves the edges just like the face.

Chairman Shaw: Do you have certain skilled persons to do that or does your fixer do it, or how?

Mr. W: We have two boys and that's all they do is to cover binders. We have approximately 2,000 looms and they don't do anything but look after those binders. We date each of the binders and when we have new binders to come in from the factory we always polish those before we put them in the looms.

Mr. P: I would like to know if anyone here has tried double-faced tape in place of cement.

Mr. W: In using cement you have to pull the slack out of the leather; you have got to be familiar with leather to be able to pull it, to be able to stretch it. We have never used that double-faced tape.

Mr. P: Using the double-faced tape speeds up the operation of the covering of the binder; you do not have to wait on the glue or cement to set, and it seems to bond better. The Scotch tape people make it and other industrial concerns do, too. It is strictly in the experimental stage as far as I am concerned. It comes in any width.

Mr. W: It may be all right. With this cement that we use we get them back in within 15 minutes;is is very quick and there is nothing there to crystalize.

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By FRANK D. HERRING

Part 30 – Roped off Filling

IF A DAILY systematic check up is followed in the weaving department it will be learned that most of the roped off filling troubles, like most all imperfections in cloth, will be confined to a very small percentage of the looms. This would naturally indicate that these few looms are out of fix. This is true in a sense, but not literally so, because it is impossible for the loom fixer to make every adjustment on every loom exactly the same. Some looms will have a little more power on the pick than others, and some of the shuttle boxes, due to many governing factors, will be slacker and fail to grip the shuttle as firmly as others. These looms will be more readily affected by temperature and humidity variations, permitting the shuttles to contact the pickers with greater force and thereby bringing the shuttle to a more sudden and abrupt stop and this will sometimes cause the filling to shell off, in battery end of loom, and this shelled, or roped off filling will sometimes pass through the shuttle eye without breaking and be layed into the cloth on the next pick or passage of the shuttle to the opposite end of loom.

The above condition will be considerably aggravated if the filling yarn is wound too slack on the bobbin, or if the yarn is built on the bobbin with the spinning traverse traveling down slow and up fast. Properly conditioned filling will also reduce the possibility of roped off filling. I mention the above things to emphasize the fact that the loom fixer is not always altogether to blame for roped off filling in the cloth. No loom fixer, regardless of how good he is, can keep the shuttles boxed on his section when there are extreme changes up or down in the temperature and moisture content, humidity, in the weave room, and when the shuttles are not boxing properly ropey filling, along with many other troubles, will be the result. My experience has been that too many weave room men are indifferent about keeping the proper room condition for best results. Due to varying local conditions it is not possible to give specific figures relating to temperature and relative humidity which would be suitable for all weaving mills. On heavily sized warp yarn thoroughly dried on the slashers, a higher humidity would be required to reduce warp yarn breakage on the loom, and vice versa.

The wise thing to do is for the overseer of weaving to determine what per cent humidity is best for his conditions, and then inaugurate a system of check and follow up that will maintain this condition. This cannot be done unless regular readings are made at regular intervals, and for best results these readings should be made every two hours during the operating time. This report should be given to the overseer, and he in turn should pass it on to the superintendent. When determining what per cent humidity is best, the fact should be kept in mind that the higher the humidity the higher the temeperature must be, because cool air will not absorb and retain as much moisture as warm air, and of course the same is true with yarn. The best for average conditions is 78 to 80 degrees (Fahrenheit) temperature and 84 to 87 degrees relative humidity.

Roped off filling will occur sometimes when the filling is alright and the room condition is correct, and of course this would be a fault of the loom. When this is the case the loom fixer should proceed as follows and check the following parts in the order named. (1) The shuttle. See that the shuttle spring is tight and the bobbin pointing straight. If the bobbin is loose or not pointing straight the strand of yarn being pulled off will drag against the tapered portion of the yarn on the bobbin, and this will sometimes cause roped off filling. Make sure that all the bristles are properly placed in the shuttle. If only two bristles are used, they should be placed near the tip end of the bobbin and exert a slight pressure on the bobbin, but not on the yarn. If more than two bristles are used they should be placed slightly higher in the shuttle walls than the two front bristles, and the holes should be drilled so that these bristles will point at sharper angles towards the shuttle eye. Any bristles, other than the two near the end of the bobbin, are put in the shuttle to break the ballooning of the yarn, and not to create tension or friction on the yarn, and they should be placed so as to avoid excessive pressure on the taper of the filling yarn as this would also cause the strand of filling being pulled off the drag off a small portion of yarn comprising the taper. Few weave room men realize the real value of having the bristles, or frictions, properly placed in the shuttles. It is customary for the shuttle makers to furnish the shuttles with only two bristles near the end of the bobbin, but very often it is necessary to use more than these two in order to control the actions of the filling; so, these additional bristles must be put in at the mill, and this work is usually done by the loom fixer, and most of the loom fixers will do a bad job of it. I have never seen two loom fixers who would bristle up two shuttles exactly alike; so, in this event one, and probably both are wrong. My experience has taught me that the most effective way to get the shuttles bristled is to have one man do the job before they are given out to the fixers. Of course bristles have to be replaced. They lose out sometimes, and they will wear out, and these should be replaced by the fixers, but it would not be necessary for him to drill new holes, as the holes would be there already, and in the right places.

(2) The pick motion. Make sure that the stroke on the picker stick is correct, and the pick cam set so as to pick at the proper time. Before setting the stroke on the picker stick the parallel plug should be checked, and if excessively worn it should be replaced.

(3) Boxing the shuttle. Correct boxing of the shuttle is of very vital importance for a number of reasons. If the shuttle box is too slack it will allow the shuttle to strike the picker with sufficient force to cause the shuttle to rebound, and this will sometimes cause the filling yarn to shell off and result in ropey filling in the cloth. Too many overseers and loom fixers are indifferent about boxing the shuttles, and the result is excessive loom stoppage and increased imperfections in the cloth. If the overseer will get each loom fixer on each shift to go over his section and check each loom and see that the shuttles are boxing correctly he will not have to check the fixers very long to see that they are doing this work, because the fixers will soon realize that it will help them so much that they will want to continue it. (This check should be made immediately after change time on each shift). I have seen this reduce the number of looms flagged on each shift by as much as 50 per cent. Before making this rule, the overseer should determine, for a fact, that every fixer on the job knows the correct way to box the shuttles, because lots of them do not know. The shuttle enters the shuttle box with a lot of driven power on it, and it should be brought to a stop gradually. We have three things to aid in bringing the shuttle to a gradual stop—the protector rod springs, the binder springs, and the check strap. The protector rod springs should be adjusted to a point where they will hold the protector rod fingers firmly in contact with the binders at all times, and not allow the fingers to shimmy and bounce away from the binders while the loom is in operation. With the shuttle all the way up in the box, adjustments should be made on the front box plate and the back binder to place the point of the shuttle spur directly over the center of the picker stck slot in the lay and raise the protector rod daggers about five-eighths of an inch clear of the frogs, and at this point, adjust the dagger stop to a point where there will be one-eighth to three-sixteenths of an inch play between the dagger stop and the protector rod daggers. Remove the shuttle from the box and adjust the binder spring to where it will rest firmly against the back binder. (I prefer a rather tight binder spring). Pull the picker stick all the way back against the end of the lay end and adjust the check strap to a point where there will be 1½ inches clearance between the check strap and the picker stick, and at this point the shuttle check bolt should be in the center of the shuttle check slot. Adjust the adjustable friction against the check strap so as to stop the picker stick about 1½ to two inches from the end of the lay end.

At this point check the heel spring and be sure it is not tight enough to pull the check strap out of checking position and allow the picker stick to drop back to the end of the lay end while the loom is in operation. (The heel spring should be adjusted just tight enough to hold the parallel tongue in contact with the parallel plug). Start the loom, and if the shuttle is not boxing properly make the necessary adjustments on the check strap or the binder spring, but do not drive the back end of the front box plate in to pinch and hold the shuttle. It is bad loom fixing to pinch, or wedge the shuttle in the shuttle box in order to hold it and prevent rebounding, because if the shuttle is wedged tight in the shuttle box it requires too much power to drive it out on the pick, and this will create unnecessary strain on all parts of the pick motion and other parts of the loom, and it will also prevent the straight passage or tracking of the shuttle across to the opposite end of the lay. After the necessary adjustments have been made to box the shuttle the fixer should always check the harness to determine if they are set and timed right, because if the harness sheds are too tight in relation to the shuttle race, or race plate, the shuttle will be thrown against the top flange on the back box plate and prevent it from boxing properly, and this also will create unnecessary wear on the top of the shuttle. The same thing will happen if the harness are timed too early, because the harness will start changing before the shuttle clears the sheds and this will cause the shuttle to rise before entering the shuttle box.

(4) The filling feeler. Put an empty bobbin in the shuttle and check all the necessary adjustments. If the feeler blade or plunger is too high or too low in relation to the bobbin in shuttle it will sometimes cause the filling to rope off after the filling yarn is wound off down to the point where the feeler blade contacts the taper of the yarn on the bobbin. The same thing will happen if the feeler spring has too much tension on it.

Kinky Filling

Kinky and ropey filling are very closely related troubles, because many of the same faulty conditions will cause both troubles. Kinky filling in cloth is confined to single filling yarns and is usually caused by one, or all of three things; varying temperature and humidity conditions in weave room, preventing the shuttles from boxing properly, excessive twist in the filling yarn, and improperly conditioned filling yarn. Most kinky filling troubles are encountered on coarse or heavy numbered yarn, and it is almost always necessary to condition this type filling thoroughly to prevent excessive breakage and kinking while weaving. All single filling will give less trouble while weaving if it has been thoroughly conditioned, because proper conditioning sets the twist in the yarn and prevents it from cutting many peculiar capers while being run off the bobbin in the shuttle. A good sure way to test filling for excessive twist or insufficient conditioning is to hold the filling bobbin in one hand and pull off about a yard of the filling strand with the other hand, then bring the hands together allowing the filling strand to twist together; then if the filling strand can be pulled back out straight without locking or twisting together it is good, almost positive, evidence that the trouble is the fault of the loom.

In this event proceed as follows and check the things in the order named. (1) The shuttle. Check the shuttle as already specified, but in addition it might be necessary to increase the friction, or tension on the filling strand by using larger and stronger bunches of bristles at the tip end of the bobbin. (Two) and (3) same as already mentioned. (4) The harness. We have more trouble with kinky filling when weaving cloth using more than two harness. This is caused by the fact that it is more difficult to set the harness to a point where all the sheds are even when they are open. If one or more of the top sheds are slack these slack warp threads will trap the kink in the filling strand before the pull by the passage of the shuttle has straightened it out. If the harness is timed too early the sheds will start closing on the filling strand before the slack has been pulled out and the same thing will happen as mentioned above.

Most kinky filling is made when the shuttle is passing towards the shipper handle end of the loom, because when the shuttle is in the box on the battery end the shuttle eye is about 16 inches from the selvage of the cloth, depending on the width of the cloth, and when the shuttle leaves this R.H. end it must travel several inches before this slack has been removed from the filling strand and tension put on it by the bristles in the shuttle. This trouble is greatly increased when weaving cloth much narrower than the loom was built to make, and in this event it is absolutely necessary to use increased tension, or heavier bristles in the shuttle.

Most Draper looms operating in this country are equipped with the Stafford thread cutting device, and the things mentioned above apply to looms using this device. But many mills are still using the older type shuttle feelers and cutting devices, and with these a different front box plate is used on the battery end of the loom and they present problems regarding kinky filling which we do not have when using the Stafford device type front box plate on battery end. The old box plate is wider and contacts considerably more of the front wall of the shuttle, and on account of this it is necessary to see that the thread groove in the front wall of the shuttle is kept cut deep enough to prevent pinching or rolling of the strand of filling as it leaves the box on the pick.

Bleaching, Dyeing & Finishing

The 1951 A. A. T. C. C. Convention

A RECORD attendance was indicative of the widespread interest shown in the 30th annual convention of the American Association of Textile Chemists & Colorists held Oct. 17-19 at the Statler Hotel in New York City. Ninety displays featured the largest textile chemistry exposition ever held in the United States. Visitors to the exposition viewed the latest in dyestuffs, processing oils and chemicals, finishes and auxiliaries, together with wet process and testing apparatus.

A total of 18 technical papers dealing with newest developments in the industry were presented during the three-day meeting at sessions of the dyeing group, printing group, auxiliaries and testing group and the finishing group.

Winners in the intersectional paper contest, announced at the annual banquet concluding the event, were (1) the New York Section with a paper on "The Measurement of Fabric Soiling;" (2) the Rhode Island Section, "The Continuous Dyeing of New Synthetic Fibers;" and (3) the Philadelphia Section's paper on "Some Variables in Improving the Crease Recovery of Cotton Fabrics with Synthetic Resins."

For the first time, winners of a contest for senior year students of textile institutes presented their prize-winning papers at the A.A.T.C.C. convention. They were Robert J. Lynch of the Institute of Applied Arts and Sciences, Utica, N. Y., "The Relative Effects of Temperature and Humidity on Moisture Content of Cotton and Wool Fibers, Yarns and Fabrics;" and C. Franklin Donyes of the School of Textiles at North Carolina State College, Raleigh, N. C., "Textile Applications of Infra-red Photography."

The winning New York Section intersectional contest paper outlined three laboratory test methods for measurement of the soiling tendency of fabrics. Three test methods resulted, it was explained, because it was found that not enough information was available on the mechanisms of soiling to permit development of a single test method. These test methods, all of which are designed to evaluate in a controlled way the various means by which soil may impinge upon textiles, are (1) the blower test, which causes impingement of soil from an air stream by interception and innertial effect; (2) the tumbler test, which causes impingement of soil by deposition and transfer; and (3) the floor test, which produces impingement principally by deposition and transfer.

An investigation to develop continuous dyeing methods for fabrics composed of the new synthetic fibers was summarized in the contest paper of the Rhode Island Section, winner of second place. It was revealed that selected vat dyes and their leuco esters could be utilized for the practical dyeing of fabrics composed of polyester and acrylic fibers. The Philadelphia Section's paper, starting with a comparison of various resin types on two cotton fabrics, was extended to cover the effect of catalysis and curing conditions, pre- and after-mercerization, and stiffening and softening agents, on a variety of fabrics. It was concluded that selection of a proper fabric and the use of a softener with the resin formulation were the most important factors in producing textiles with high crease recovery and maximum tear strength.

Dyeing Group Meeting

Five papers were presented during the meeting of the dyeing group. Dr. John D. Guthrie of the Southern Regional Research Laboratories, New Orleans, La., discussed "Attachment of Dyes to Cotton by Ether Linkage." Cotton fabric colored by this process, Dr. Guthrie declared, has outstanding wash fastness. While the light fastness of colors so dyed is only fair, he said, it is equal to or better than cotton fabrics dyed with commercially developed azo colors.

Dr. George M. Gantz of General Aniline & Film Corp., in considering "Textile Fibers from Synthetic Resins," reported that special techniques involving high temperatures, swelling agents and coupling agents have been found to greatly increase dye affinity, but that much more work must be done before these fibers can be dyed with fastness qualities equal to their inherent durability.

A study of copper salts as assistants in dyeing Orlon acrylic fiber was presented by Dr. R. H. Blaker and Dr. J. F. Laucius of E. I. du Pont de Nemours & Co., Inc. These studies, they revealed, have led to the development of a satisfactory dyeing procedure for polyacrylonitrile fibers in general. According to the Du Pont technicians, this process requires formation of a cuprous salt of an acid dye within the fiber. Cuprous ion is first absorbed by Orlon fiber, and forms bonds with certain nitrile groups. A dye anion then forms a salt with one of the cuprous ions thus bound. Temperature, pH of dye bath and concentration of cuprous ion have a pronounced effect on the rate of dyeing, they said.

"The Ogden Process for Simultaneous Stripping and Dyeing of Wool" was outlined by F. A. Prisley, director of research for Watson Park Co., Ballardvale, Mass. According to Mr. Prisley, it has been found that under suitable conditions satisfactory results may be obtained by dyeing and stripping re-used and re-worked materials in one bath. The procedure currently used in most plants consists of stripping followed by a wash and often by neutralizing in a new bath. The goods are then re-dyed in a fresh bath. The Ogden process, he said, may be used to eliminate one and in some cases two of these three baths.

A.A.T.C.C. OFFICERS—*Seated, left to right:* **George O. Linberg, vice-president; C. Norris Rabold, president; and J. Robert Bonnar, vice-president.** *Standing, same order:* **Leonard S. Little, chairman of the research committee; Harold C. Chapin, secretary; Albert E. Sampson, assistant treasurer; William R. Moorhouse, treasurer; and Harold W. Stiegler, director of research.**

The session of the dyeing group was concluded with a paper on "The Standfast Process of Dyeing" presented by Francis S. Richardson of the Waldrich Co., Delawanna, N. J. Reviewing the Standfast process, Mr. Richardson revealed that the principle involved in the process is the use of molten metal as the medium in which fixation of the dye occurs. The cloth is impregnated with dye liquor and passed through the molten metal, where dyeing is completed. The unit consists of two parts, the dyeing machine and the conventional soaping range, but both are run together as a single unit.

Printing Group Meeting

The printing group session, conducted on the opening day of the convention along with that of the dyeing group, saw the presentation of four technical papers.

The printing machine of the future, according to Donald C. McGiehan of Rice-Barton Corp., New York, will provide additional cloth decorative effects. The new pattern effects, he said, might be provided by driving print rolls of various circumferences, adding that some interesting designs may be developed by driving some print rolls at multiple speeds of the others. In considering his topic, "The Mechanics of Textile Printing," Mr. McGiehan discussed also the construction of printing machines and reasons for various practices in printing different cloths as well as new developments in printing machine construction.

"Some Obesrvations in Textile Printing" was the topic of Otto F. Habel of General Dyestuff Corp., who gave a brief account of past and present developments in the textile printing field in the light of future significance. He gave particular attention to resist printing and also the printing of vat colors by the flash or chemical pad principle, expressing the opinion that resist printing as well as the printing of vat colors by the chemical pad process in both machine and screen printing will find wider application in this country.

Albert P. Royle of Sandoz Chemical Works, Inc., New York, described "The Use of Resinous-Copper Complexes in Printing" in which the copper is incorporated within the resin molecule and "its use produces a tremendous increase in fastness." According to Mr. Royle, "tests on goods dyed or printed with direct colors which have not been treated show a considerable loss of color and a bad staining of white cotton when washed at 140° F., but the same type of dyestuff when after-treated with the resinous-copper complex will show little or no loss of color and no staining of cotton at this temperature."

The use of alkyd resin water-in-oil emulsions for textile print work requires careful control of conditions, it was stated by Howard C. Woodruff of the chemical division of General Electric Co., in discussing "The Effect of Emulsion Stability on the Range of Color Values Obtained from Pigment Printing Media." According to Mr. Woodruff, the method of emulsion stability measurement is derived from current practice in the art and appears suitable for use as an experimental tool for further research, being particularly adapted for use in measuring, and therefore controlling variations during the diverse stages of manufacturing textile print media for production purposes.

Auxiliaries and Testing Group

The auxiliaries and testing group met Friday morning, Oct. 19, with P. J. Wood of Royce Chemical Co., Carlton Hill, N. J., presiding.

The first paper presented at this session was "The Engineering Approach to Woolen Fiber Lubrication" by Paul J. Martin of Socony Vacuum Oil Co., Boston, Mass. Within the past year and a half, he stated, a new approach to the proper use of wool oils has been successfully employed in woolen mills throughout the country. This system of technical service, he said, embraces all phases of woolen mill processing which are affected by or which affect woolen fiber lubricants. He paid particular attention to the oil content and the moisture content of the stock from the picker house through the finishing department, adding that determination of these data is speeded through the use of a modern moisture meter recently adapted to woolen mill requirements which eliminates tedious laboratory methods of determining moisture regain and makes it possible to run these evaluations in a matter of seconds.

Although it was known that detergents and other surface active agents were effective because they were absorbed, it has been possible until recently to determine the amount actually absorbed on the textile surfaces, it was revealed by L. H. Flett, L. F. Hoyt and J. Walter of the National Aniline Division, Allied Chemical & Dye Corp., in their paper, "Quantitative Data on the Absorption of a Detergent by Cotton Sheeting Under Textile Processing Conditions." Improved analytical procedures capable of assaying minute quantities of anionic detergents, they reported, has made it possible to study both the amount of Nacconol adsorbed from solution by textile fibers and the factors which govern that adsorption.

ACRILAN acrylic fiber was formally introduced to the textile industry by the Chemstrand Corp. at the October convention of the American Association of Textile Chemists and Colorists. The display featured an illustration of the architect's conception of the finished Chemstrand facilities at Decatur, Ala. On the center background was a flow chart indicating the steps in Acrilan production. Situated at the end of the flow chart was a revolving bowl of give-away sample Acrilan. Flanking the chart were samples of Acrilan in various end-uses to illustrate its properties of dyeability, unlimited blends with all known fibers, warmth and warm-to-the-touch factors, high recovery of fibers when distorted, semi-permanent heat-set creases, fabric stability, and bulk without weight. The company has prepared a three-color give-away booklet describing the corporation, its production facilities and the properties ascribed to Acrilan staple fiber.

"Progress in Wetting and Re-wetting Test Methods" was outlined by Dr. Leonard Shapiro of Synthron, Inc., Ashton, R. I., who reported that the most frequently used tests are the "sinking tests," especially the loaded tape and skein methods which he described as excellent for rapid laboratory testing. He added, however, that these measure time for only one degree of wetting. A rate-of-wetting curve is important for complete evaluation, he declared, adding that the hydrometer method is the simplest. Re-wetting speeds improve considerably with increase pad temperature and increasing immersion time, he said, declaring that drying conditions are also important.

Drs. John J. Singer and Frederick C. Bersworth of Bersworth Chemical Co., Framingham, Mass., described briefly the chemistry involved when metallic ions react with organic complexing agents in their paper, "Sequestering Agents in Textile Applications." The effects of metal impurities in the dye bath and their inactivation through the use of organic complexing agents was discussed in detail.

A discussion of the methods used for testing fabrics, dyes, finishes and other chemicals used in the textile industry for the presence of primary skin irritants and cutaneous sensitizers was presented by Dr. Louis C. Barail of the United States Testing Co., Hoboken, N. J. Of five tests considered, Dr. Barail concluded that the animal intradermal single injection method has numerous advantages which make it the number one screening method for the testing of primary irritants and cutaneous sensitizers in the textile industry because it is simple, accurate, reproducible, rapid, and inexpensive.

Finishing Group Meeting

The finishing group session, at which four papers were presented, was presided over by Weldon G. Helmus of Fairlawn Finishing Co., Fair Lawn, N. J.

The first paper presented at this session was "Static Problems and their Control in the Textile Industry," by J. H. Hewson of John Hewson Co., New York, and Joseph A. Lopez of Kanmak Mills, Kulpmont, Pa. This paper outlined the nature of the static problem in textile processing operations, the reasons for the increasing severity of this problem and the four major ways in which static affects textile operations. It was reported that the development of electronic controls operating under the principles of controlled diffuse discharge has increased the effectiveness of control over the problem of static in the textile industry and that the availability of this new production and quality control tool has given effective control over static and has permitted increased production speeds and control over quality and waste not formerly possible.

Advantages and limitations on the use of brighteners for improving the appearance of textiles was considered by Dr. J. P. G. Beiswanger of General Aniline & Film Corp., Easton, Pa., and Opal L. Sherburne of General Dyestuff Corp., New York, in their paper "Textile Applications of Brighteners." Practical methods of application were described for rayon, cotton and wool and the importance of satisfactory methods of control were emphasized. "While the major portion of work to date has been on cellulosic fibers, the highly favorable results obtained by applying

The luncheon session during the second day of the 30th national convention of the American Association of Textile Chemists and Colorists meant something besides eating to the delegates. It was the occasion of a mixed fibers symposium, which led off with an address by J. Spencer Love, chairman of the board of Burlington Mills Corp.

brighteners to wool would seem to warrant extension of this evaluation technique to animal and possibly synthetic fibers," it was stated.

"Advances in Theoretical and Practical Studies of Gas Fading" was the title of a paper prepared by Walter D. Paist, Victor S. Salvin and William J. Myles of the Celanese Corp. of America in which the phenomena of gas fading was described and the mechanism of the reaction in relation to the nature of the fabric was discussed as well as the use of the newer dyes and inhibitors. It was reported that the problem of increasing the gas fading resistance of dyed fabrics has received and is receiving considerable attention from both the yarn producer and the dye manufacturer. The number of gas fading complaints has been markedly reduced, it was stated, and will be reduced much further as the use of improved dyes increases.

Data collected in connection with a survey aimed at developing information which might lead to improvements in the chemistry and mechanics of the continuous peroxide bleach system were presented by T. E. Bell and N. J. Stalter of the electrochemicals department of E. I. du Pont de Nemours & Co., Inc., in a paper titled "Characteristics of Cotton Fabrics Processed in Continuous Peroxide Bleaching Systems." Summarizing their survey, the Du Pont technicians conclude that (1) the continuous peroxide bleaching process will produce satisfactory whiteness and whiteness retention on aging; (2) the fiber is not damaged, as determined by fluidity measurements; (3) a satisfactory absorbency can be attained, both the caustic and peroxide treatments being mutually helpful; (4) non-cotton values are generally in line with accepted values; (5) the amount of oils, fats and waxes remaining in the goods is slightly less than in other processes; (6) the function of the gray sour needs further study; and (7) the pH values of goods continuously bleached are higher than from batch processes.

Intersectional Contest

Other intersectional research contest papers presented at the convention, not in the prize winning category mentioned previously, included those of the Southeastern Section, South Central Section, Northern New England Section and the Mid-West Section.

The Southeastern Section's paper, "A Study of the Effects of Fabric Construction and Mercerization on the Light and Washfastness of Vat Dyes," highlights an investigation of the possible effects of fabric construction and preparation on the light and washfastness characteristics of vat-dyed fabrics, with the study indicating that light and washfastness are characteristics of dyestuff itself and are apparently unaffected by fabric construction or previous mercerization.

A device intended to aid in judging the hand of very soft fabrics is described in the contest paper of the South Central Section, titled "Toward a Simple Mechanical Means of Judging Hand." The fabric gauge, or ring method, consists of pulling a nine-inch square through a porcelain pot eye 13/16th of an inch in inside diameter, and at the same time measuring on a tensometer the maximum tension required for the operation. Test results, the paper revealed, showed good correlation with hand evaluation but it was stated that more testing should be done for true evaluation of the instrument.

The Northern New England Section's paper, "The Effect of Agitation on Dyeing," revealed that the way agitation is applied in the dyebath is at least as important as the amount of agitation. It was further stated that the use of beads of inert material in the solution speeded the dyeing, as well as greater agitation by use of a wider arc of swing in the apparatus used. Also, doubling the energy input by doubling the amount of dye solution and the abound of fabric used, had no effect on the time required, it was revealed.

"New Developments in the Dyeing of Synthetic Fibers" was the title of the Mid-West Section's contest paper. It presented new methods for dyeing such synthetic fibers as nylon, Dacron polyester fiber and Orlon acrylic fiber said to be more economical and to produce better results. Comparative formulas for different procedures were given.

Symposium

Two outstanding guest speakers heard during the convention were J. Spencer Love, chairman of the board of Burlington Mills Corp., and Dr. L. B. Cook, chief of the dyeing and finishing branch of the textile division of the National Production Authority.

NEW DYES FEATURED—Spectrolenes, new fast color bases which mix rapidly with combinations of naphthols to provide a large number of brilliant shades of fresh dyes for textiles, were featured in the exhibit of the Hilton-Davis Chemical Co. at the 30th annual convention of the American Association of Textile Chemists and Colorists. In the new method for mixing dyes, developed by Hilton-Davis, the bases and naphthols are put together right at the finishing plants, thus averting any loss of color and brilliance.

Speaking before a mixed fibers symposium luncheon, Mr. Love told the group that "we are indeed standing today on the threshold of some of the greatest fabric advances yet open to the textile industry," but added that this advancement would not come of itself. "It will take hard work and a substantial period of time. And it will take wise and alert direction by management to produce these so-called wonder fabrics.

Taking as his subject, "From Wonder Fiber to Wonder Fabric—A Challenge to Management," Mr. Love cautioned that the "wonder" fiber does not always produce a "wonder" fabric. "Those of you who have gone through the trials and tribulations from fiber to fabric realize that it takes a lot of research, experimentation, sampling, and investigation of all the details connected with spinning, conditioning, mixing, twisting, weaving, dyeing and finishing before a satisfactory fabric is produced."

Mr. Love suggested that perhaps the industry was overpublicizing the new fibers, before it knew all about them. He cautioned, don't overlook the possibilities in the fibers that have been in existence for some time—rayon, acetate, nylon—these continue to offer tremendous possibilities, he said. He also stressed the need for creation of one industry-wide promotion body; a council embracing all members of the man-made textile community including yarn producers, fabricators, converters and dyers and finishers.

HEADWORK—Burwell Abbott, *right*, famous caricaturist, sizes up C. Norris Rabold, 1951-52 president of the A.A.T.C.C. Looking on, *center*, is Thomas T. Allen, New England representative of the Virginia Smelting Co., which featured Mr. Abbott at its booth at the show and presented the ceramic studies done by hand to the visiting delegates.

Dr. Cook confined his remarks to activities of the dyeing and finishing branch of the N.P.A. textile division in the defense mobilization program. He listed the general duties of the dyeing and finishing branch as follows: (1) Analyze supply and demand for essential resources and material by industry and business and recommend proposed allocations. (2) Ascertain status of productive capacity of critical industries and recommend measures necessary to increase such capacity. (3) Formulate allocations and conservation orders and administer all approved orders and control measures. (4) Direct flow of critical materials and schedule produc-

AHCOVAT-DYED FABRICS and a new range of dyestuffs known as the Solacet colors were the principal displays of Arnold, Hoffman & Co., Inc., during the wet processing show held in conjunction with the A.A.T.C.C. convention. In addition, examples were provided demonstrating the application of the Ahcovels and others in the line of textile and industrial specialties offered by this Providence, R. I., firm.

tion and delivery of critical materials, components and end products. (5) Direct utilization of facilities to maintain schedules and to assure best utilization of existing productive facilities. (6) Recommend and administer conservation and scrap programs.

He concluded his remarks with "this branch has no products under conservation, no material under allocation and does not expect to have any in the foreseeable future. We have been able to render assistance to the textile finishing industry—as a sort of friend in court—in its contacts with other divisions. We plan to continue to give our customers this type of service."

A feature of the annual banquet concluding the A.A.T.C.C. convention was presentation of the Olney Medal to Raymond W. Jacoby of the Ciba Co. The Olney Medal is awarded annually by A.A.T.C.C. for outstanding achievement in the field of textile chemistry and is considered one of the industry's greatest honors. C. Norris Rabold of Erwin Mills, Cooleemee, N. C., president of the association, made the presentation of the medal to Mr. Jacoby.

Prior to presentation of the medal to Mr. Jacoby, addresses were heard by Elliott Broadbent of Glenyon Print Works, "The Medalist, the Man," and by Dr. W. George Parks of the University of Rhode Island, "The Medalist, the Scientist." In his acceptance address Mr. Jacoby urged management as well as chemists to make greater use of the word "Why?" in their daily lives.

Officers of the A.A.T.C.C. are: Mr. Rabold, president; George O. Linberg of Belle Chemical Co., Boston, Mass., vice-president; J. Robert Bonnar of General Dyestuff Corp., New York, vice-president; Dr. Harold C. Chapin of Lowell, Mass., secretary; William R. Moorhouse of National Aniline Division, Allied Chemical & Dye Corp., treasurer; Albert E. Sampson, also of National Aniline, assistant treasurer; Leonard S. Little, textile consultant of New York City, chairman of the research committee; and Dr. Harold W. Stiegler of Lowell (Mass.) Textile Institute, director of research.

New Method For Dyeing Dynel For Blends

A specific method for stock dyeing the dynel to be used in the 15 per cent dynel-85 per cent wool blend, authorized in new specifications for Marine Corps green kersey, has been developed by Carbide & Carbon Chemicals Co., a division of Union Carbide & Carbon Corp. Details of the new method, which employs the "copper drip" technique, indicate that it is practical for immediate use in commercial equipment, according to T. A. Feild, Jr., who has been in charge of the development at Carbide's laboratories in South Charleston, W. Va.

Development of the technique was stimulated by the issuance on Nov. 1 of Inv. 145-S for 672,200 yards of green kersey cloth for the Marine Corps Supply Depot, Philadelphia. Bids were to be opened at 11 a.m. on Nov. 26.

The procedure consists of five successive steps in the dyebath: preliminary dyeing, the "drip" period, resumption of dyeing, relustering with sodium sulfate, and rinsing and scouring. Total dyeing time from loading to unloading is estimated at five hours. Estimated total cost of all dyes, assistants, wetting agents and scouring materials is from 23 to 25 cents per pound of stock.

Mr. Feild stressed that proper heating and rate of liquor circulation are vitally important in using the new technique on the dynel-wool kersey blend. Some rearrangement of heating coils may be necessary in certain types of equipment. Heating coils are preferably located in the surge tank rather than in the dye kettle, except when open tubs are used.

To control the flow of liquor, either hand throttle valves or orifice plates are desirable, he said. Liquor circulation should approximate one gallon per minute per pound of fiber. This results in a pressure drop across the stock of ten pounds per square inch. Higher rates of circulation may cause packing and later difficulty in cleaning up. In addition, machine cover plates should be of a type that prevents cake shifting, Mr. Feild said.

The new procedure employs 2.25 per cent Du Pont Anthraquinone Blue SWF 150 per cent; 4.5 per cent Eastman Fast Yellow 4RLF, and 0.90 per cent Eastman Fast Red GLF to obtain the correct shade of green. Fastness studies are currently being made, although previous experience with these dyes indicates that the fastness obtained when the correct technique is used will far exceed that required by the specification.

Maintenance, Engineering & Handling

Engineers Study Mill's Electrical System

By JAMES T. MEADOR

THE Charlotte Sub-Section of the American Institute of Electrical Engineers had one of the most active meetings of its history on Monday evening, Sept. 24, with an inspection trip of the Pineville, N. C., plant of the Cone Mills Corp., which was participated in by 75 members and guests. The gathering point was the Pineville High School Auditorium, where J. Dan McConnell, chief engineer of the Cone Mills Corp., gave the group an informal briefing on the plant they were to visit, beginning with its history and explaining the features of interest to be observed while there, after which there followed a description of the plant's electric distribution system with its feeder and branch wiring arrangement. It was brought out that this plant in its original organization was one of the earliest in this part of the country to use electric power supplied by the transmission lines of the Duke Power Co. from its Catawba hydroelectric generating plant, several miles away on the Catawba River.

Mr. McConnell emphasized the importance of a close relationship between the electrical manufacturers and the textile industry, inasmuch as a more intimate familiarity of the electrical engineers with the problems of the mill men will bring about more accurate manufacturing and process controls which would yield a higher quality of production at a lower unit cost. He also pointed out the fact that a more thorough working knowledge of the production process methods and requirements of the textile industry by the electrical wiring engineers and contractors would result in less expensive, and yet, far more practical application and uses of electric power.

Wiring Arrangement

This plant, being of one-story construction and covering a wide area of considerable length, was considered as being too large for the usual type of wiring systems which would have required a single power service entrance with one switchboard of such capacity as to take all of the branch circuit breakers for all the departments of the whole mill. Therefore, after some prolonged studies had been made, they decided to have the plant belted with a 2,400 volt primary transmission line around all four sides, with several transformer sub-stations located in "balance" arrangement so that all transformers would have approximately the same load as they were all of the same rating, each being rated at 750 KVA, three-phase, 2,400 volts primary, 600 volts secondary, with taps for adjusting the voltage output. From these transformers the current was carried on a bus bar arrangement to a metal-clad air-break type switchboard with a main circuit breaker and a number of branch circuit breakers. The main breaker being of 800 amperes continuous rating and 50,000 R.M.S. amperes interrupting capacity, and the branch breakers all being of 200 ampere continuous rating and 25,000 R.M.S. amperes interrupting capacity. From this point on into the mill, the usual type of mill wiring was used with the feeders being of two-inch conduit with No. 3/0 varnished cambric cable, and the taps being one-third of the feeder size, or No. 6 V. C. cable in one-inch conduit. (This is a provision of the National Electrical Code that is so frequently either *overlooked* or *intentionally* neglected, in keeping with the necessity of the situation.) See Section 4348 of the Code, entitled "Feeder Taps in Inaccessible Locations," which reads: "If the location of a tap to the feeder conductors is not accessible, the branch circuit switch and fuses may be placed where they will be accessible, provided the cables from the tap to the switch and fuses have the same current carrying capacity as the feeder; or, provided they have a capacity of at least one-third that of the feeder, and are not more than 25 feet long, with protection from mechanical injury." Also, of special interest was the fact that they could be, during emergency periods, supplied with current by the adjacent unit substations and switchboards if their own substation transformer or switchboard should fail in service.

These feeders began to develop heavy condensation as they were put into service, which was during cold weather, when some condensation might have been expected. But, this time the condensation was excessive, and required some immediate attention. This situation was remedied by means of sealing the conduit and cable on both sides of the outside wall through which they passed.

Another feature of this plant which boosts it up the scale of what's new and good for the mill from the viewpoint of reduced fire hazards and labor health and accident insurance, is the fact that no greenfield flexible conduit was used in the plant for motor leads from the starters or controllers to the motor terminals. Instead, flexible neoprene, oilproof, rubber-jacketed cable with three conductors for power and one conductor, with green insulation, for the grounding circuit, was used with terminals at the various points, such as starters, switches, conduit fittings and motor terminal boxes, being made with waterproof connectors having neoprene, oilproof stuffing glands for holding the cable fast and tightly. This idea was especially featured in the weave room, on the loom wiring.

The weave room floor, instead of being of the beam and decking type, same as the rest of the mill, was instead, of the type necessary for the modern, high-speed looms to be operated on without any movement. This was with a concrete slab floor base in which were embedded creosoted two by six-inch timbers, edge-up, on which wooden mill decking was spiked, and then hardwood (maple) finished, mill type flooring completed the construction. The looms were then glued to this finished floor by means of the usual felt pads and the glue which is now used so frequently, and which has proven itself to be of such satisfactory performance in so many cases.

This plant was the pioneer in the application and use of individual card drives on a large scale, inasmuch as the whole number of cards here was so equipped and started on this basis when this remodeled version of the plant was started up. Through the experimentation and data obtained at this plant, certain types of card drives have been perfected to the present satisfactory designs, thanks again, to the guidance of Dan McConnell.

The production of this plant is gray goods, twills and drills, of 19s to 20s yarn. Virgil R. Revels is superintendent and J. T. Lowry is master mechanic, both of whom conducted the tour of the plant with the able and alert assistance of several of their overseers and other personnel.

Mr. McConnell urged that both the textile men and the electrical people concentrate on making future plans for meetings in such a manner as to bring together for "airing" all ideas of safety, economy and trouble-free production by means of electric power. At any rate, this meeting was rated as a most successful affair, as the men who developed and perfected the whole electrical power and lighting system were present for the occasion. William Rigler, electrical engineer, Watson and Hart, Engineers, Greensboro, N. C., who takes credit for the planning of the job, gave a brief discussion of the reasons for the accepted design. J. C. Cummings, Bryant Electric Co., High Point, N. C., explained the problems involved in the electrical construction.

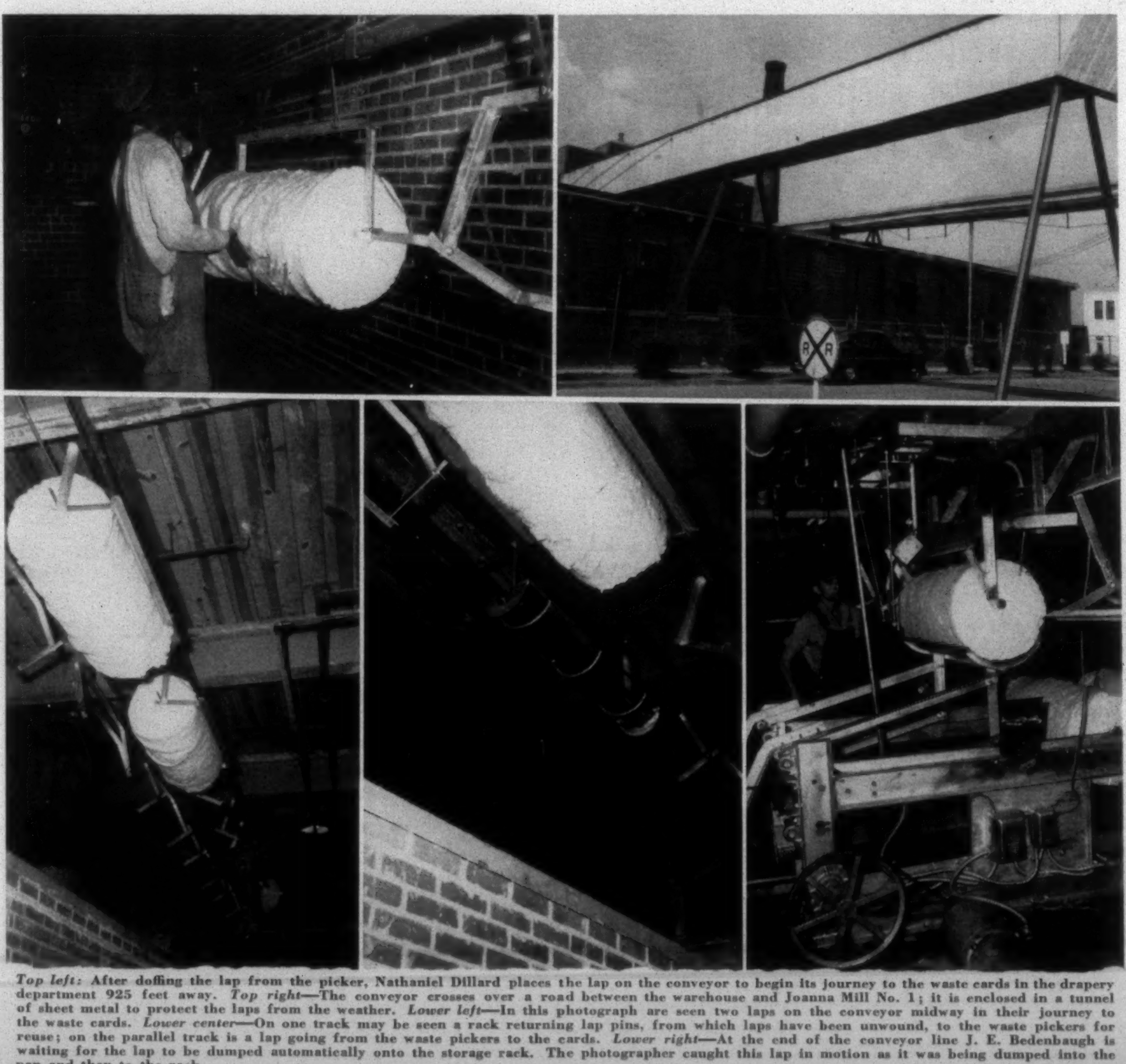
Joanna's Unique Lap Conveyor System

A MATERIALS handling system, by which laps are carried from waste pickers in the opening room to the plant's drapery department by a conveyor system having an over-all length of 1,850 feet and containing 308 lap hangers spaced on six-foot centers, was recently put into operation by Joanna (S. C.) Cotton Mills Co.

Prior to the installation of the conveyor, it had been customary to handle these laps by mounting them on rack trucks capable of holding eight laps. Next, these were loaded by electric jack onto a truck which could hold two racks of laps. This truck would then be driven around the warehouse, across Milton Road, down Ellis Street and Joanna Square, and delivered to the cloth loading platform. From this point they would be picked up and carried to the basement by a man detailed for this job. This was a very expensive and wasteful operation. In addition to the delay and the waste of manpower caused by all this handling, the laps suffered damage, causing rough laps to be delivered to the cards. Under the new arrangement, most of the laborious effort and excessive handling of the laps has been eliminated, resulting in great savings through reduction in cost and damage.

The conveyor is designed to accommodate all laps made in the opening picker room and to deliver these to their destination without further handling. One and one-half hours after the lap is placed on the hanger at the pickers it is delivered automatically at the unloading device adjacent to the drapery department cards. The lap, weighing 52 pounds, arrives at the unloader in excellent condition.

The operation of this conveyor is very simple. The picker hand, after doffing the lap, places it on a self-balanced hanger mounted on a chain. From there the chain carries it smoothly and evenly 925 feet away to the delivery point where it encounters an automatic unloading device. By



Top left: After doffing the lap from the picker, Nathaniel Dillard places the lap on the conveyor to begin its journey to the waste cards in the drapery department 925 feet away. *Top right*—The conveyor crosses over a road between the warehouse and Joanna Mill No. 1; it is enclosed in a tunnel of sheet metal to protect the laps from the weather. *Lower left*—In this photograph are seen two laps on the conveyor midway in their journey to the waste cards. *Lower center*—On one track may be seen a rack returning lap pins, from which laps have been unwound, to the waste pickers for reuse; on the parallel track is a lap going from the waste pickers to the cards. *Lower right*—At the end of the conveyor line J. E. Bedenbaugh is waiting for the lap to be dumped automatically onto the storage rack. The photographer caught this lap in motion as it was being dumped into the pan and then to the rack.

means of a trigger mechanism, the lap engages a series of electric motions which causes it to be dumped into a pan and loaded by air pressure onto a chain which moves it the exact width of the lap in order to make room for the next lap. As the laps are delivered, the chain on the unloader moves further and further toward the end of the machine where the card operators remove them and place them on individual cards.

At intervals the pins on which the laps were rolled are collected after the laps are unwound onto the cards, and the same conveyor system returns these pins in a tray to the waste pickers for re-use.

Plant Maintenance Parley Set Jan. 14-17

Manly Fleischmann, administrator, Defense Production Administration, will head a group of 56 speakers in the most extensive discussion of plant maintenance problems ever undertaken, to be held at the Plant Maintenance Conference, Convention Hall, Philadelphia, Pa., Jan. 14-17, 1952, it is announced by Clapp & Poliak, Inc., the exposition management.

The conference, which will be held in conjunction with the Plant Maintenance Show, will have as its general chairman L. C. Morrow, consulting editor, *Factory Management & Maintenance*. More than 14,000 are expected to attend and 225 companies are expected to exhibit.

The displays also will be of record proportions in the field and will cover an area five times that of the first show held two years ago in Cleveland. Special emphasis in both the conference and the exhibits will be placed on preventive maintenance to help meet the huge military and civilian production schedules of next year.

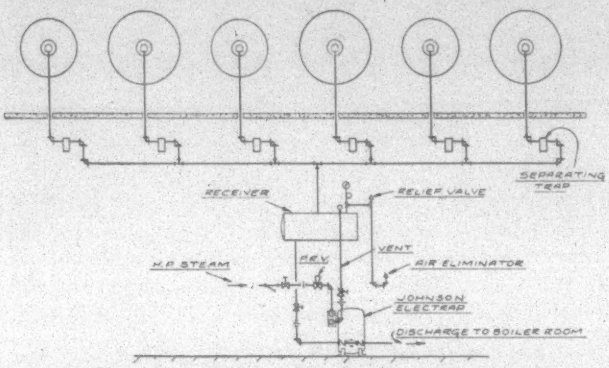
The conference is sponsored by the American Society of Mechanical Engineers and the Society for the Advancement of Management. The American Society of Lubrication Engineers conducts the panel on lubrication. Highlight of the conference will be the division into more than 30 separate sessions in order to accommodate special talks on individual industry needs and to permit executives to discuss problems that arise in plants of varying sizes and varying maintenance needs.

Particular problems to be discussed include maintenance of plant buildings, electrical equipment, mechanical equipment, power plant and service equipment, and materials handling equipment. General sessions will be on maintenance costs, project preparation, inspection methods, scheduling of maintenance work, training workers and supervisors, personnel, operating policies, safety and plant protection, housekeeping, and welding.

Scheduled during the afternoon session Jan. 16 is a discussion on "Maintenance in Textile Plants" by Daniel McConnell, chief engineer for Cone Mills Corp., Greensboro, N. C., and John M. Roddy, plant engineer, manufacturing division, Bigelow-Sanford Carpet Co., Thompsonville, Conn.

Electrap System For Returning Condensate

A new cost-cutting method of returning condensate from a slasher to boiler room has been favorably reported by a well-known textile mill. This new system is engineered by the Johnson Corp., Three Rivers, Mich., around its Electrap, an electrically operated pumping trap. The Electrap replaces the conventional centrifugal pump and receiver ordinarily used to get condensate from high pressure processing equipment back to the boiler room. High pressure condensate, of course, means high temperature condensate; and with the conventional pump some of these valuable heat units must be deliberately dissipated in order that the pump can handle condensate without vapor binding.



To reduce this high temperature the receiver is usually vented to atmosphere, to permit some of the condensate to flash into steam. As much as 15 per cent of the condensate can be lost through flashing, depending upon temperature. Additional heat units are dissipated by the addition of raw water to cool the condensate still more to a pumpable 170° or 180°. In contrast, the Johnson Electrap is a closed system and condensate is returned to boiler room with heat units intact. In the installation shown in accompanying diagram, condensate is drained from slasher rolls by separating traps. It is discharged into the receiver at approximately 220° F.

Operation of the Johnson Electrap is completely automatic. The Electrap consists of a chamber, three-way solenoid valve, and two motionless electrodes which determine the operating cycle. There are no moving parts in or on the Electrap proper. Operation is as dependable as the flow of electricity, the company states.

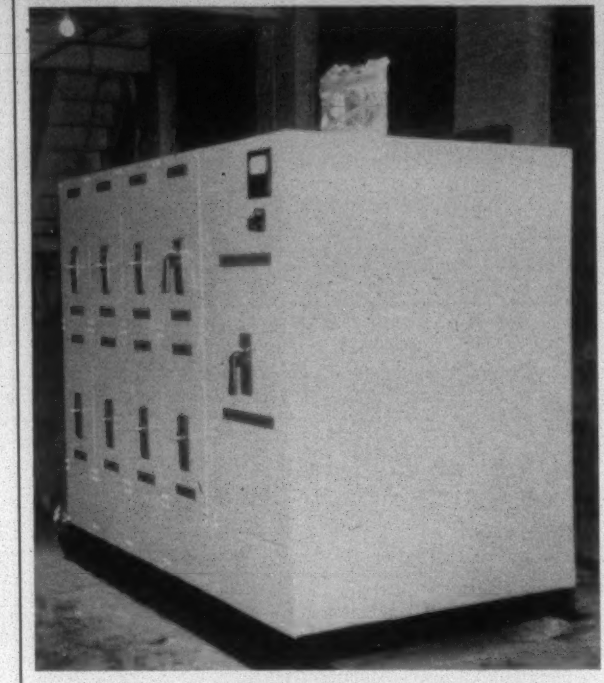
Condensate flows into the Electrap chamber until rising level reaches short element. This completes a circuit through a relay which, in turn, operates the three-way solenoid valve to admit boiler pressure. This pressure forces condensate in the chamber back to boiler room. When level falls below long electrode the three-way solenoid valve closes inlet, and vents pressure to condensate receiver, where condensate is held at 220° F. Then the Electrap fills again, renewing the cycle.

Plan Slash In Machinery Production

Output of textile machinery will be cut to 45 per cent of the 1951 rate of production because of reductions in allocations of scarce materials to the industry, the National Production Authority announced Oct. 18.

The announcement followed a meeting of N.P.A. officials with manufacturers who are on N.P.A.'s industry advisory committee for the textile machinery industry. It said the manufacturers recommended to N.P.A. that the basis for determining allotments of controlled materials to their industry should be reviewed "and consideration given to an upward revision of the allocation."

A 45 per cent slash in textile machinery production would put the output at about 1947 levels, N.P.A. said.



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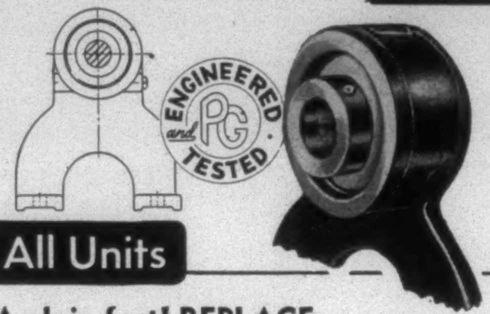

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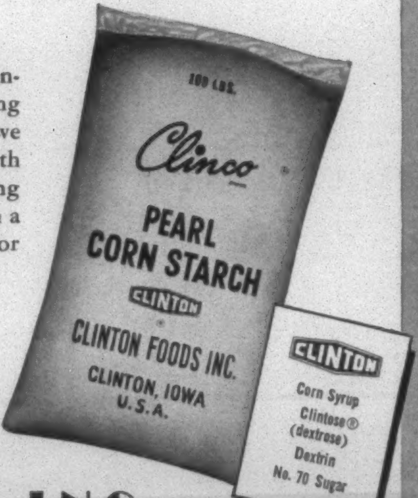

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Promotions, Resignations, Honors, Transfers, Appointments, Elections, Civic and Associational Activities

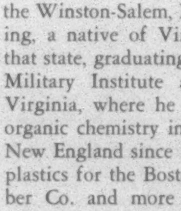
PERSONAL NEWS

Walter M. Mitchell, vice-president of Draper Corp. in charge of Southern territories, announces the appointment of two division managers for the South, effective Nov. 1. Donald Marshall *(left)*, a graduate of Clemson College in textile engineering in 1938, will be division manager in charge of sales and service in South Carolina, North Carolina and Virginia, with headquarters in Spartanburg, S. C. Wilton Kilgore *(right)*, a graduate of Alabama Polytechnic Institute in textile engineering in 1937, will be division manager in charge of sales and service in Georgia, Alabama, Tennessee, Mississippi, Louisiana, Texas, Oklahoma, Kentucky, Arkansas and Indiana, with headquarters in Atlanta, Ga. Both Mr. Kilgore and Mr. Marshall have been in the employ of Draper Corp. ever since leaving college, except for the time each spent in the army during World War II. Mr. Mitchell will continue to divide his time between both territories.

W. A. Thomason, Jr., has resigned as Southern editor of *Textile World* to join Saco-Lowell Shops as a sales engineer working out of the firm's Charlotte, N. C., office. A native of Charlotte, Mr. Thomason is a 1941 graduate of the North Carolina State College School of Textiles, and served as an assistant professor at the school from June, 1947, to June, 1950. He served in the Quartermaster Corps during the war and was awarded the Legion of Merit for setting up a program in the China-Burma-India theatre to manufacture all textile and clothing items for American forces in that theatre and all Chinese forces under American command. . . . Edwin T. Cansler, Jr., formerly with Springs Cotton Mills at Lancaster, S. C., has also joined the staff of Saco-Lowell at Charlotte. . . . Fletcher S. Culpepper, formerly a selling agent for Saco-Lowell at Charlotte, is now associated with Stonecutter Mills Corp. at Spindale, N. C.

Thurber H. Bierce has been elected secretary and treasurer of Dan River Mills, Inc., Danville, Va. Mr. Bierce comes to Dan River from Rochester & Pittsburgh Coal Co. where he served as controller and assistant treasurer. R. B. Newton, Dan River's president, formerly served also as treasurer and thus is relieved of this additional duty by Mr. Bierce's appointment.

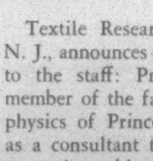
T. B. Jackson, long associated with the Aragon Plant of Aragon-Baldwin Mills and Industrial Cotton Mills, divisions of J. P. Stevens & Co., Inc., Rock Hill, S. C., has been named manager of these two plants. Both Aragon and Industrial are included in the Dunean Group of the Stevens company. Mr. Jackson will continue as assistant secretary of J. P. Stevens & Co., Inc. . . . P. Jennings White has been named superintendent of the Greer (S. C.) Plant of Victor-Monaghan Co., division of J. P. Stevens & Co., Inc. Mr. White succeeds H. P. Glenn who resigned recently. For the past two years Mr. White has been overseer of carding at Dunean Mills, Greenville, S. C., another division of the Stevens company.



George L. Browning, Jr., Wellesley, Mass., treasurer of the Northeastern Section of the American Chemical Society, has accepted a position as field technical representative for Synthron, Inc., manufacturing chemists, of Ashton, R. I. He will represent the Southern states and expects to make his home in the Winston-Salem, N. C., area. Dr. Browning, a native of Virginia, was educated in that state, graduating from both the Virginia Military Institute and the University of Virginia, where he earned his doctorate in organic chemistry in 1939. He has been in New England since 1945, first as manager of plastics for the Boston Woven Hose & Rubber Co. and more recently as a technical salesman for the Raw Materials Co., also of Boston. Prior to that, he was employed for more than five years by the B. F. Goodrich Co. in Akron and Cleveland, Ohio.

J. R. Timmerman, for the past year superintendent of the Modena Plant of Burlington Mills Corp. in Gastonia, N. C., has resigned from that post to accept another textile position. He will remain in Gaston County. Ray Rogers, superintendent of the Ranlo (N. C.) Plant of Bur-Mil, near Gastonia, will serve also as superintendent at Modena. J. C. Sproull, who for the past year has had a general over-all connection with the spun rayon plants of Burlington in the Gastonia area, has been appointed assistant superintendent at Modena. . . . Charlie Jamerson, for the past several years director of personnel and recreation at the Steele Plant of Burlington Mills at Rockingham, N. C., has been transferred to the company's main office at Greensboro, N. C. . . . Ernest H. Miller joined Burlington Mills Corp. (N. Y.) Nov. 1, as manager of the company's New York dyeing and finishing division. Mr. Miller succeeds Justus Addis who has been transferred to the firm's industrial and diversified fabrics division and appointed general sales manager under Chester Bassett, division manager. Mr. Miller has resigned his post as treasurer and sales manager of P-V-M Corp. with whom he has been associated since 1932. Mr. Addis has been associated with Burlington Mills since 1934 in various manufacturing and merchandising positions.

Alan B. Sibley has been elected treasurer of Drayton Mills, Spartanburg, S. C., to succeed J. T. Wardlaw who will be retired Dec. 1. Mr. Wardlaw has been connected with Drayton more than 20 years, 18 of which he has served as treasurer. Mr. Sibley is vice-president of Judson Mills at Greenville, S. C., Gerrish Milliken Mill at Pendleton, S. C., Gayley Mill at Marietta, S. C., and Kingsley Mill at Thomson, Ga., all filament rayon mills of the Deering, Milliken group. . . . G. G. Simmons, formerly production manager at Drayton, has been appointed general manager and J. B. Tollison has been named superintendent.



R. M. Bourdeaux, Jr., for the past several years a field representative for the American Cotton Manufacturers Institute, has announced his resignation from that post effective Jan. 1. He has not made known his future plans. Mr. Bourdeaux joined the staff of the former A.C.M.A. in 1946 and continued as field representative when the institute was created in 1949.

Textile Research Institute of Princeton, N. J., announces the following appointments to the staff: Professor Walker Bleakney, member of the faculty of the department of physics of Princeton University, will serve as a consultant to the institute on physical research problems. Dr. Ann Palm will be a member of the physical chemistry section. Her initial assignment will be in the field of dyeing. She has had experience as a senior chemist at the Industrial Research Institute, Chattanooga, Tenn., and as a re-

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search associate at Hillside Hospital, Glenn Oaks, N. Y. Frank Meyer, who holds a masters degree from the Polytechnic Institute of Brooklyn, will continue the work initiated by Dr. R. O. Steele and Mrs. Elsa Hambraeus on determinations of crystallinity using X-ray diffraction techniques. Mrs. Hambraeus recently returned to her home in Stockholm, Sweden.

J. E. Spearman has joined Seydel-Woolley & Co., Atlanta, Ga., as a representative in sales and service work, selling to the wet division of the industry. A native of Chattanooga, Tenn., he is a graduate of Clemson College, Clemson, S. C., and took his master's degree at Georgia Tech. His previous affiliations include North American Rayon Corp., Elizabethton, Tenn., and American Enka Corp., Enca, N. C.

Kyle Ward, Jr., head of the cotton fiber division at the Southern Regional Research Laboratory, New Orleans, La., recently was awarded a certificate of appreciation by the Department of Defense for his outstanding research work.

Brig.-Gen. Robert P. Hollis Nov. 8 assumed command of the New York Quartermaster Procurement Agency, relieving Brig.-Gen. H. L. Peckham who will become the Deputy, the Quartermaster General in Washington.

Dr. Thomas H. Nelson, dean emeritus of the North Carolina State College School of Textiles, recently had his hip broken in a revolving door and has been confined to Rex Hospital, Raleigh.

J. M. Bailey, formerly plant manager, has been named general manager of Judson Mills at Greenville, S. C. Mr. Bailey joined Judson in 1939 from the Carter Fabrics plant at Greensboro, N. C. . . . James C. Clark is retiring Dec. 1 as Judson's superintendent and will be succeeded by Alfred G. New, his assistant. At Judson's sixth annual service emblem presentation dinner Nov. 1 Mr. Clark was presented a silver pitcher and goblets in appreciation of his service.

Furman G. Carroll, for the past three years manufacturing superintendent of the Front Royal, Va., plant of American Viscose Corp., has been transferred to the firm's Nitro, W. Va., facility as assistant plant manager. A native of Greenville, S. C., he is a graduate of Clemson (S. C.) College and has been associated with American Viscose for more than 12 years. . . . H. Wickliffe Rose, assistant to the president of American Viscose Corp., recently was re-elected president of the American Tariff League, Inc.

Dr. Edward F. Wesp, assistant manager of the Du Pont rayon planning division for the last seven months, has been made assistant director of production for Orlon acrylic fiber. A. B. Walmsley, Jr., is director of production for Orlon. . . . Edward R. McLean, former assistant to the manager, has been made manager of the planning section of the Du Pont nylon division. Mr. McLean succeeds Cantwell Clark, who retired Sept. 30.

C. L. Denk, Jr., general traffic manager of Fulton Bag & Cotton Mills, Atlanta, Ga., has been elected secretary of the National Association of Shippers' Advisory Boards.

William J. McGeough, vice-chairman of the board of U. S. Bobbin & Shuttle Co., Rumford, R. I., was honored Oct. 15 at a dinner in Boston, Mass., on completion of half a century with the firm. He was presented an inscribed clock and barometer set.

R. Finley Thompson has been appointed assistant to the plant manager and Donald W. Chappel has been named superintendent of the cellulose acetate department at the Narrows, Va., plant of Celanese Corp. of America. Mr. Thompson has been with Celanese since 1927 and Mr. Chappel has been with the firm since 1935.

Hugh Comer, president of Avondale Mills, Sylacauga, Ala., and J. Spencer Love, chairman of the board of Burlington Mills Corp., Greensboro, N. C., have been named to a 100-member committee which will be responsible for financial and business operations of the National Council of the Churches of Christ in America.

W. Benton Pipkin, former president and treasurer of Edna Mills Corp., Reidsville, N. C., now a unit of Cone Mills Corp., has succeeded Marion W. Heiss, vice-president of Cone Mills, Greensboro, N. C., as an employers' representative on the North Carolina Employment Security Commission.

E. B. Shaw has been named general manager of the New England division of American Thread Co. For the past eight years he has been agent in charge of Williamantic (Conn.) Mills and prior to that was superintendent of American Thread's Dalton, Ga., plant.

R. L. Jones has been appointed sales manager of the textile division of Royce Chemical Co., Carlton Hill, N. J. Mr. Jones joined Royce in 1935 following his graduation from Cornell University with B.S. degree in chemistry. Prior to his recent promotion he had been covering the Pennsylvania territory for Royce.

Earl Groves, Jr., assistant treasurer of Groves Thread Co., Gastonia, N. C., recently was elected president of the Gastonia Young Men's Business Club at an organizational meeting of the group.

A. G. Myers, president of Textiles, Inc., Gastonia, N. C., and Martin A. Cannon, Sr., prominent textile executive of Charlotte, N. C., recently were elected directors of the North Carolina Business Foundation.

Henry A. Lineberger has been elected

president of Acme Spinning Co., combed cotton yarn mill of Belmont, N. C., and Joseph W. Lineberger has been made a director of the firm. In these positions they succeed their brother, the late A. C. Lineberger, Jr.

Leroy H. Smith, general manager of the Roanoke, Va., plant of American Viscose Corp., and Benjamin E. Holgate of American Silk Mills, Orange, Va., recently were awarded certificates of appreciation by the Department of Defense for service with the technical industrial intelligence committee of the joint chiefs of staff in World War II.

W. M. Kirby, Jr., formerly associated with Clinton (S. C.) Cotton Mills, has joined Wade Mfg. Co., Wadesboro, N. C., as assistant superintendent.

Ed Y. Sweet, assistant director of recreation at Mooresville (N. C.) Mills, has been elected chairman of the industrial division of the North Carolina Recreation Society. Mr. Sweet succeeds G. M. Matlack of the Cramerton (N. C.) Division of Burlington Mills Corp. . . . Ralph Johnson of Firestone Textiles, Gastonia, N. C., was elected assistant chairman of the society's industrial division.

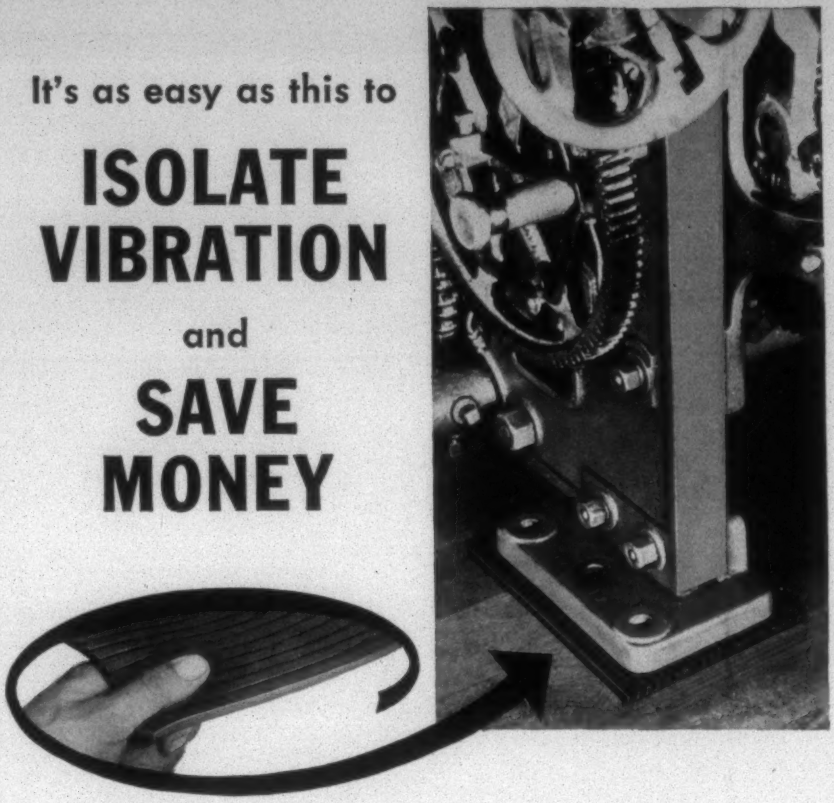
William M. Keller has been appointed general factories manager of the fiberglas textile products division of Owens-Corning Fiberglas Corp. Since March, 1950, Mr. Keller had been manager of the Huntingdon, Pa., fiberglas textile plant. Appointed to succeed him as Huntingdon plant manager is Lloyd S. Wainfor, who had served in the plant since March, 1950, most recently as production manager. In his new position, Mr. Keller will be headquartered in the fiberglas textile division headquarters, 16 East 56th Street, New York, N. Y. He will have charge of all fiberglas textile yarn manufacturing operations of plants in Huntingdon, Ashton, R. I., and Anderson, S. C.

C. D. Nalley, formerly assistant superintendent of the Woodruff (S. C.) Plant of Abney Mills, has been transferred to Abney's Poinsett Plant in Greenville, S. C., as superintendent.

F. A. Snyder has been made general manager of the Clark Thread Co. plant at Thomasville, Ga., succeeding the late Carleton E. Bauldry. Mr. Snyder has been with the company for 19 years, starting in Newark, N. J., and going to Thomasville at the opening of the Georgia plant. He served as general manager of the production department and was closely associated with the former general manager. . . . Taking the vacated place of Mr. Snyder, the company has elevated H. D. Brooks, formerly office assistant. Mr. Brooks, a native Georgian, has been with the company for 15 years. He went to Thomasville from Clarksdale, Ga., four years ago.

Frank E. Masland, Jr., president of C. H. Masland & Sons, New York, recently was re-elected for a second term as chairman of the board of trustees of the Carpet Institute.

William Fraser, a director of J. P. Stevens & Co., Inc., and until a year ago treasurer of the firm, completed 50 years in the industry last month and was honored at a dinner held at the Astor Hotel in New



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York City attended by about 1,000 persons in the textile and allied trades. Mr. Fraser was presented an engraved parchment book containing the tributes of his friends and associates in the trade.

Julius H. Hill has been appointed Southern regional manager of Metallizing Engineering Co., Inc., with offices at New Orleans, La. He has been connected with the firm since 1945. Prior to his new appointment he was field engineer, handling sales in the middle and Southern Atlantic states.

Wade H. Shuford, banker of Hickory, N. C., has been elected president of Quaker Meadows Mills of Hildebran, N. C., succeeding W. H. Belk of Charlotte, N. C. Other officers elected were Horace C. Lutz, Sr., vice-president; B. B. Blackwelder, Sr., treasurer; Margaret Newton, secretary; B. B. Blackwelder, Jr., assistant secretary.

Dr. Forrest D. Pilgrim has been appointed assistant division superintendent in charge of production of the Koda department of Tennessee Eastman Co., Kingsport, Tenn. Dr. Pilgrim succeeds H. R. Childs who has been named senior assistant superintendent in charge of technical development. . . . Dr. William B. Hincke, who formerly headed the firm's plastics development unit, has been made superintendent of yarn development for the Koda and Teca departments. Dr. Hincke in turn has been succeeded by L. W. A. Meyer. . . . G. W. Hakanson, previously assistant superintendent, has been made superintendent of the Koda quality and standards division.

William Bynam has been elected executive vice-president of the Carrier Corp. Mr. Bynam, who joined the firm in 1930, formerly was vice-president and general sales manager. From 1931 to 1945 he served in engineering, sales and management capacities in the South and Mid-West.

George C. Miller has been promoted to sales manager of the textile yarn division of Industrial Rayon Corp. Before joining the sales organization on April 1, 1949, Mr. Miller served as assistant treasurer and assistant secretary in the executive offices in Cleveland, O. Mr. Miller joined the corporation Dec. 1, 1945. He will continue to be located at the company's sales offices, 500 Fifth Avenue, New York.

J. L. Armstrong, treasurer of Imperial Chemical Industries, Ltd., London, England, has been appointed chairman of the board of Imperial Chemical Industries (New York), Ltd. R. T. Holder, previously vice-president of the New York company, has been named president. Mr. Armstrong, Mr. Holder and M. G. Tate, manager of I.C.I.'s American department, have been named directors of Arnold, Hoffman & Co., Inc., an I.C.I. affiliate. In addition, Mr. Armstrong has been appointed director of Canadian Industries, Ltd., another affiliate of I.C.I. . . . Al Carrad, vice-president of I.C.I. in New York, M. A. Stotter Brooks, and H. S. McClean have been appointed additional directors of the New York company. . . . E. J. Barnsley has relinquished the offices of president and chairman of I.C.I. in New York and will retire from the board as well as from the board of Arnold, Hoffman & Co. on his retirement from I.C.I.'s service on Dec. 31. S. P. Chambers and J. L. S. Steel, I.C.I. directors, are resigning from the board of Arnold, Hoffman & Co.

John Schoberlein has joined J. W. Valentine Co., Inc., textile selling agents, as stylist of rayon and other synthetic fabrics. Mr. Schoberlein will be in charge of all phases of development for the apparel trades, with special emphasis on developing uses for the newer synthetics. He is a graduate of the Textile College of Zurich, Switzerland, and has extensive experience in the development of synthetics. Prior to joining the Valentine organization, Mr. Schoberlein spent six years with Bloomsburg Mills, 14 years with Duplex Fabrics Corp., and four years with Burlington Mills in New York.

M. R. Harden, manager of Plant No. 8 of Erwin Mills, Inc., at Stonewall, Miss., recently was elected first vice-president and a member of the board of directors of the Mississippi Manufacturers Association.

Robert Train has been elected vice-president to succeed the late Fred G. Barnes as executive in charge of raw materials at Bibb Mfg. Co., Macon, Ga. Mr. Train had assumed these duties on the death of Mr. Barnes earlier this year.

Paolino Gerli of Gerli & Co., Inc., recently was re-elected president of the International Silk Association (U.S.A.), for the coming year. Among those re-elected as directors of the association were J. P. T. Armstrong of Belding-Hemingway, Earl Constantine of the National Association of Hosiery Manufacturers, and Daniel E. Douty of U. S. Testing Co.

E. S. Dillard has been elected president of Old Dominion Box Co., Charlotte, N. C., whose products are widely used in the textile industry. D. H. Dillard, the former president, was elected chairman of the board.

David Clark of Lincolnton, N. C., nephew of the editor of THE KNITTER and TEXTILE BULLETIN, has been named as co-chairman of the North Carolina Citizens Committee for the Hoover Report.

William G. Luttge recently was named sales manager for Chemstrand Corp., Decatur, Ala., to handle sales of the firm's new acrylic fiber Acrilan, and nylon. Mr. Luttge was for 25 years associated with American Viscose Corp. and since 1945 had been manager of the viscose rayon sales division. . . . Malcolm V. Macfarlan has been named to succeed Mr. Luttge as manager of the viscose rayon sales division. Mr. Macfarlan joined the firm in 1945 and had been serving as assistant to Mr. Luttge.

Charles C. Bell and Winthrop S. Warren have been elected vice-presidents of Universal Winding Co., Providence, R. I. Mr. Bell, director of research and engineering, and Mr. Warren, domestic sales manager, will continue in their respective capacities.

T. L. Ryan of New York City has been appointed vice-president in charge of textile sales for Cooper Motor Lines, Inc., Greenville, S. C.

OBITUARIES

Frank Davis, 89, founder of Frank Davis Mfg. Co., Inc., manufacturer of textile mill equipment, died Nov. 7 at his home in Pawtucket, R. I. He founded the company in 1898 and retired in 1931. Survivors include his widow, a daughter, and two sons.

Irving Greenberg, 39, a partner in Monticello Cotton Mills and vice-president of Charm Tred Mills, both of which have plants in Monticello, Ark., died Nov. 9 at his home in Winnetka, Ill. Surviving are his wife, three sons and five brothers.

Charles E. Hendrixson, 74, retired secretary-treasurer of American Viscose Corp., died Nov. 1 at his home in Ridley Park, Pa. Mr. Hendrixson had been with the firm for 18 years and retired in 1939.

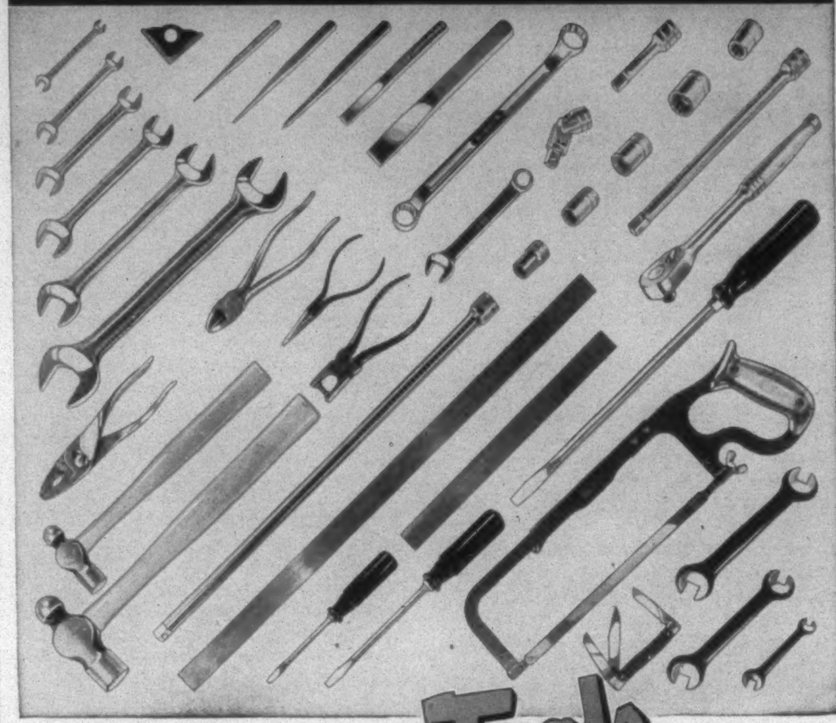
John E. Hull, 78, president of Victor Ring Traveler Co., died Oct. 25 at a hospital in Providence, R. I. Mr. Hull became associated with Victor in 1899 as superintendent. He was made vice-president and general manager in 1913 and became president in 1920. Surviving are his wife, a son and daughter, and a brother, William A., who is secretary and treasurer of Victor Ring Traveler Co.

Richard E. Jahr, 52, secretary-treasurer of Standard Chemical Products, Inc., Hoboken, N. J., died suddenly Oct. 17 of a heart attack. He was a native of Union City, N. J.

F. Robbins Lowe, 52, vice-president and Southern agent for Saco-Lowell Shops, died Oct. 29 at his home in Charlotte, N. C., after an illness of several months. Before joining Saco-Lowell in 1935 Mr. Lowe was associated with Washington Mills Co., Fries, Va.; Alabama Mills, Birmingham, Ala.; Mooresville (N. C.) Mills; and Locke Cotton Mills Co. of Concord, N. C. A graduate of the University of North Carolina, he was a star back on the 1919-21 university football teams and was team captain in his senior year. Surviving are his wife, his mother, two sons, a daughter, two sisters and a brother.

Charles M. McLeod, 67, a vice-president and chairman of the executive committee of Iselin-Jefferson Co., Inc., New York City, died Oct. 23. He was a director of Woodside Mills and a former director of the Association of Cotton Textile Merchants of New York. Before joining Iselin-Jefferson in 1945 he was an executive with several other textile concerns. He is survived by his wife.

Dr. George J. Wilds, Jr., president of Coker's Pedigreed Seed Co., Hartsville, S. C., died Oct. 26 after a brief illness. He was recognized as one of the South's foremost plant and seed breeders and achieved an international reputation for his scientific work with Southern field crops, especially cotton.



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MILL NEWS

CONSTRUCTION. NEW EQUIPMENT. FINANCIAL REPORTS. CHARTERS. AWARDS. VILLAGE ACTIVITY. SALES AND PURCHASES

TRYON, N. C. — Kilburn Mill of New Bedford, Mass., has begun construction of a new thread finishing plant at Tryon. The management has purchased Lake Lanier to provide water for processing. George B. Knowles, Sr., president of the parent mill at New Bedford, which was founded in 1905, is well known in textile circles. George B. Knowles, Jr., and James Knowles are associated with their father in this enterprise. Lockwood Greene Engineers, Inc., Spartanburg, S. C., are architects and engineers for the new plant. Fiske-Carter Construction Co. of Spartanburg is the general contractor.

SYLACAUGA, ALA. — Avondale Mills recently completed a new warehouse at Sylacauga. The warehouse is a two-story building of flat slab concrete construction with brick curtain walls. The building is designed to handle finished goods from all the plants of the Avondale Mills, and is provided with a railroad siding, a covered platform on one side of building, and unloading docks for trucks opposite side of building. A ramp is provided for power truck trains for bringing finished goods from the mill to the first and second stories of the warehouse. A future third story has been provided for in the design of the building. Lockwood Greene Engineers, Inc., Spartanburg, S. C., was the engineer and designer for this project and General Construction Co. of Columbia, S. C., general contractor.

NEW HOLLAND, GA. — A half-million dollar addition to Mill No. 4 of Pacolet (S. C.) Mfg. Co., a division of Deering, Milliken & Co., is nearing completion. This three-story addition will add about 60,000 square feet to the plant's production facilities. The first and third floors will provide space for new twister rooms, while the second floor will be a weave room. In addition to these new facilities, an apparatus tower providing additional air conditioning capacity for this totally enclosed structure was completed about the middle of November. This is a steel frame structure with brick curtain walls and wood floors, designed to match those in the existing building to which these new facilities are being added.

GAINESVILLE, GA.—Pacolet (S. C.) Mfg. Co., division of Deering, Milliken & Co., is expanding its Mill No. 6 at Gainesville, providing a new one-story weave room of 60,000 square feet. This new half-million dollar unit has just been completed and is finished throughout in glazed tile. It is totally enclosed and air conditioned with steel frame supporting a concrete slab roof. Brick curtain walls enclose the structure. Daniel Construction Co. of Greenville, S. C., and Birmingham, Ala., is general contractor for both these projects.

SEVIER, N. C.—The new plant of American Thread Co. located at Sevier is well started and foundations are complete and ready for the erection of steel, according to a recent announcement. General contractor for this project, reported to cost in the neighborhood of seven million dollars, is Daniel Construction Co. of Greenville, S. C., and Birmingham, Ala.

GREENVILLE, S. C. — The Judson Mill division of Deering, Milliken & Co. in Greenville is currently adding two large apparatus towers and one refrigeration room for the air conditioning of its new weave room. This $200,000 project is being handled by Daniel Construction Co. of Greenville, S. C., and Birmingham, Ala., who also constructed the recently completed weave room addition to Judson. This is part of Deering, Milliken & Co.'s long-range modernization and expansion program in which every existing mill of its group is being completely modernized and in which many new production units are being added. In this program more than 2,000,000 square feet of production area have been added since the war and another 4,000,000 square feet completely modernized.

GREENVILLE, S. C. — The new 30,000 square foot warehouse for the storage of finished goods currently being built for F. W. Poe Mfg. Co. by Daniel Construction Co. of Greenville and Birmingham, Ala., is due to be completed soon. This three-section all masonry warehouse is attached to the present mill building by a totally enclosed eight-foot access ramp, providing for the use of lift trucks in the warehouse. The three compartments are separated by brick curtain walls and automatic fire doors. It's of all masonry construction with pipe columns and 20-year tar and gravel roof. The reported cost of this one-story building is in excess of $100,000., including sprinklers and complete fire control system.

GREER, S. C. — The Victor-Monaghan Greer Mill, division of J. P. Stevens & Co., is currently having a new community building erected by Daniel Construction Co. of Greenville, S. C., and Birmingham, Ala. This $150,000 building, providing complete recreational facilities for the mill's workers, is replacing an old and less extensive community building removed for the addition on new weave room facilities. The 90 by 130-foot structure has a clear span field welded rigid steel frame construction giving a completely clear inside space for use as dance floor, gymnasium and other community activities.

NEW YORK, N. Y.—Robbins (N. C.) Mills, Inc., is offering to holders of its common stock, rights to subscribe for 166,846 shares of 4.50 per cent cumulative convertible preferred stock, Series A, $50 par value, at $50 per share and at the rate of one share of preferred for each five shares of common held. An investment banking group headed by Dillon, Read & Co., Inc., will purchase from the company any shares of preferred stock remaining unsubscribed at the end of the subscription period, Oct. 30, 1951. The new stock is convertible into common stock at any time on or prior to Nov. 30, 1961, at $36 per common share taking the preferred stock at $50 per share. A sinking fund of five per cent per annum is provided for, commencing Nov. 30, 1961. Robbins Mills is engaged in the manufacture and sale of a wide variety of fabrics from synthetic yarns. Capacity for the production of synthetic staple fabrics is expected to be doubled early in 1952 when the company's new $12,500,000 plant at Raeford, N. C., reaches full operation. Other mills are located at Robbins, Red Springs and Aberdeen, N. C., and Clarksville, Va.

ANNISTON, ALA.—Pitts Construction Co. has begun work on 9,000 square feet of additional floor space for Anniston Mfg. Co., which the mill will utilize for finished cloth storage. This project is expected to cost $40,000.

SHELBY, N. C.—Employees of Cleveland Cloth Mills and their families attended a celebration recently marking the mill's attainment of two million man-hours without lost-time accidents. A plaque was presented to the employees by Liberty Mutual Insurance Co.

HUNTSVILLE, TEX. — The National Production Authority recently denied the State of Texas a permit to construct a $520,000 textile plant at the State Penitentiary here.

GROVER, N. C.—A construction program is now under way at Minnette Mills which will add 10,000 square feet of floor space to the present plant and expand operations by about 20 per cent. The company now operates 76 jacquard-type looms in the production of bedspreads, ticking and upholstery fabrics.

CHICKAMAUGA, GA.—An expansion and modernization program currently under way at Crystal Springs Bleachery, Inc., will add 74,650 square feet of floor space, bringing the plant total to 500,000 square feet, and give increased production and more efficient operation. Construction of two new wings, one a two and the other a three-story building, has been completed and the work of installing machinery now is under way. The program is scheduled to be completed about Jan. 1. Equipment of the latest type purchased includes 1,350 high-speed looms that will increase the output of the cotton manufacturing division by 50 per cent. Considerable new equipment also has been installed in the company's bleachery, which is equipped to finish 300,000 yards of cotton cloth a day.

MURPHY, N. C.—Date stone setting ceremonies for the new $400,000 plant of Duffy Silk Co. were held Nov. 8. Charles G. Duffy, Jr., set the stone with a sterling silver trowel presented to the Duffy company by Romeo H. Guest, vice-president of C. M. Guest & Sons, builders of the new mill. Biberstein, Bowles & Meacham, Inc., of Charlotte, N. C., is the project engineer.

GREENVILLE, S. C.—A group meeting of J. P. Stevens & Co., Inc., personnel was held Nov. 2 at Stevens Mfg. Research, located here. Approximately 105 people attended the meeting, presided over by Raymond G. Emery of Greenville, executive vice-president and chairman of the manufacturing committee of the Stevens company. The group included executives and management from all manufacturing and merchandising divisions of the company, together with stylists and research personnel. Among those taking a leading part in the day's proceedings were Robert T. Stevens, chairman of the board; J. P. Stevens, Jr., president; Joseph H. Sutherland, executive vice-president and vice-chairman of the Stevens manufacturing committee. Participating in the discussions were the vice-presidents from the various divisions of the company. A tour of Stevens Mfg. Research was conducted in the morning, after which a business session was held. The purpose of the meeting was to discuss research as related to manufacturing and merchandising and to co-ordinate future efforts along this line. All basic raw materials and processing systems were considered. The remainder of those in attendance at the meeting, beside the members of the technical staff of Stevens Mfg. Research, included key personnel from the 36 plants in the Stevens organization, administered in five groups, with the names of the groups and the locations of the respective administrative offices as follows: M. T. Stevens & Sons Co., North Andover, Mass.; Carter Fabrics Operating Group, Greensboro, N. C.; Dunean Group, Greenville, S .C.; M. T. Stevens Southern, Milledgeville, Ga.; Delta Finishing Co., Philadelphia, Pa.

GRIFFIN, GA.—A new hot air slasher has been installed and is now in operation at the Griffin Plant of Thomaston (Ga.) Mills.

ROCK HILL, S. C.—R. A. Postlethwaite, president and treasurer of Samarkand Mills, Inc., recently announced a change in the ownership setup of the plant, which includes a rug mill and a yarn mill here. The corporation, in which he was the sole stockholder, will be dissolved and the mills will be operated by him personally. There will be no change in personnel and the selling office will continue in New York and a Philadelphia plant will continue under a corporate setup. The employees profit sharing fund will be dissolved and the assets of about $100,000 distributed to the workers.

GOODWATER, ALA.—The Goodwater industrial committee recently informed Blackstone Mills, Inc., Clinton, Mass., that it is ready to build a $500,000 plant should the firm decide to move its facilities to the Alabama city. Blackstone officials several months ago visited Goodwater investigating sites for a probable move South. The company asked that a building be furnished which it could lease and pay for over a period of years. A member of the local industrial committee stated that if Blackstone was not interested there are several other textile concerns which have shown interest in locating in Goodwater.

BETHLEHEM, PA.—Schwarzenbach-Huber Co. plans to close its million-dollar plant here at the end of the year. A company spokesman attributed the closing to a re-

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trenchment program posed by uncertain conditions of today's market. The plant will be thrown on the market, it is reported, and its work consolidated in the plant at Front Royal, Va. Weaving plants are operated at Juniata, Pa., and Front Royal, a throwing plant at Luray, Va., and dyeing plants in Columbia, Pa., and Clifton, N. J.

Whitmire, S. C.—The Whitmire Plant of Aragon-Baldwin Cotton Mills, a division of J. P. Stevens & Co., recently completed 3,000,000 man-hours without a lost-time accident. This is a record for the company and is believed to be a near-record for all industry.

Spray, N. C.—New equipment recently installed in the blanket wet finishing department at the finishing mill of Fieldcrest Mills here includes a new Rodney Hunt 12-strand slack-loop washer and a new Rodney Hunt 12-strand dye machine.

Greer, S. C.—Employees of the Greer Plant of J. P. Stevens & Co. at a recent date had purchased 146 company-owned homes in the mill village for a cash consideration of $408,475.

Seneca, S. C.—The new Seneca plant of Utica-Mohawk Cotton Mills, Inc., one of the largest textile plants built in South Carolina since World War II, is nearing completion. Upon completion of the facility Utica-Mohawk will move its entire operation from New York to South Carolina. The firm's main office will be located at Clemson, S. C.

Macon, Ga.—Stockholders of Bibb Mfg. Co. at a meeting Oct. 26 voted approval of a retirement plan to provide pensions for all employees.

Biltmore, N. C.—A half-million dollar expansion program currently under way at Sayles Biltmore Bleacheries includes construction of a concrete and steel building 475 feet long and 100 feet wide. The building will cost about $250,000 and installation of new machinery will cost about the same amount. The building is being constructed by Fiske-Carter Construction Co. of Greenville, S. C., builders of the original plant.

Fountain Inn, S. C.—A Green Cross safety flag was presented the Fountain Inn Plant of Woodside Mills recently in recognition of the plant's safety record during the past three years. Special pins designating the three-year record were presented to approximately 200 employees.

Martinsburg, W. Va. — The Berkeley Woolen Co. plant, idle several years, has been made available for a short or long-term lease by Virginia Woolen Co., the owner. The all-brick structures contain 138,000 square feet of floor space in multi-story construction.

Trion, Ga. — The addition of 15,000 new spindles and a new building for more looms are part of a current expansion program at Riegel Textile Co., according to R. P. Hardeman, general manager. The new spindles will be installed in a building left vacant by the removal of the mill's glove unit to an Alabama plant, Mr. Hardeman stated. Other cotton mill machinery will be installed in the expansion program, according to Mr. Hardeman. The mill, which employs approximately 3,500 workers, spins, weaves and finishes cotton cloth.

Shannon, Ga.—Completion of a multi-million-dollar modernization and plant improvement program at the two Brighton Divisions plants—one near Rome, Ga., and the other at Forsyth, Ga.—has been announced by Burlington Mills Corp., which has its headquarters at Greensboro, N. C. The announcement was made by J. C. Cowan, Jr., president of Burlington Mills. Mr. Cowan said completion of the extensive remodeling program places the Brighton plants among the most modern, efficient and up-to-date textile manufacturing plants in the nation. Most of the work was done at the Shannon plant nine miles from Rome. The other Brighton plant is a spinning mill at Forsyth supplying the Shannon mill. Mr. Cowan said the modernization program makes the Brighton plant near Rome the largest single manufacturing unit in Burlington's system. The company has 72 textile plants in 43 communities in eight states. Total cost of the modernization program was reported to be between $4,000,000 and $5,000,000. The project was begun immediately after Burlington acquired the spinning and weaving plant at Shannon and the smaller plant at Forsyth in August of 1950. Howard R. Hart is president of Brighton. A large portion of the money spent at Brighton was allocated for new machinery. The floor plan and machinery layout was altered and other phases of the remodeling program included installation of fluorescent lighting, new flooring, a new humidification system, air conditioning and renovation of the power plant and other auxiliary services.

For the Textile Industry's Use

EQUIPMENT — SUPPLIES — SERVICES — LITERATURE

Catalin Opens Plant

Catalin Corp. of America held an open house for the public Oct. 27 on the occasion of commencement of operations at its new Southern plant at Thomasville, N. C. The new plant is located four miles south of Thomasville on Route 109. Other Catalin facilities are located at Calumet City, Ill., and Fords, N. J.

Metallizing Handbook

A new metallizing handbook has recently been published by Metallizing Engineering Co., Inc., of Long Island, N. Y. The 250-page text, a completely new work, is profusely illustrated with photographs, diagrams and charts. It provides a comprehensive coverage of the technical as well as practical aspects of the process. Various methods of surface preparation and the application of metallizing coatings for machine element work, for corrosion work, and for many special production jobs, are thoroughly detailed along with valuable supplementary information. This includes such miscellaneous applications as the repair of blow-holes in casting, brazing and soldering, glass and ceramics, mass coatings in tumbling barrels, electric circuits and model work, etc. According to Metco, this comprehensive new handbook is the result of almost 20 years of experience in the design,

SONOCO PRODUCTS CO., manufacturer of paper cones, tubes, spools and paper specialties with headquarters at Hartsville, S. C., recently opened this new plant at Mystic, Conn., which contains approximately 63,000 square feet of floor space. G. W. Blunt White is Sonoco's vice-president in charge of Northern operations with headquarters at Mystic, and A. H. Gildersleeve is general sales manager for the Northern division. In addition to those at Hartsville and Mystic, Sonoco operates plants at Garwood, N. J., Philadelphia, Pa., and Lowell, Mass.

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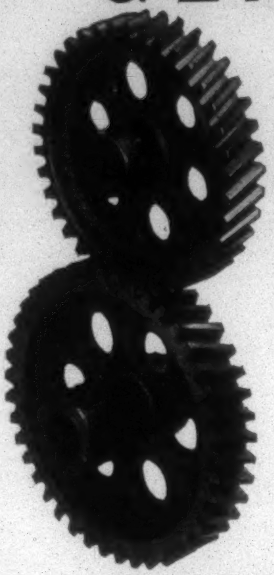

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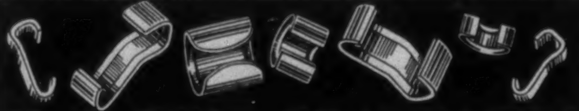

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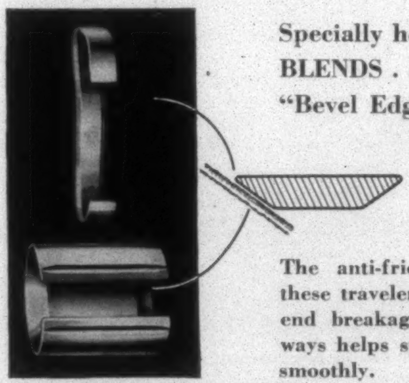

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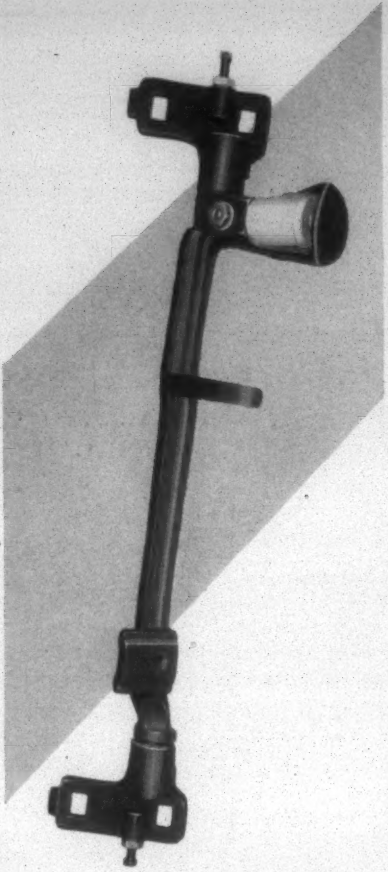

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manufacture and use of metallizing equipment. Price of the cloth-bound edition has been set at $3 per copy, postpaid in the United States and Great Britain only.

New Sales Office

Completion of the large, new sales office and distributing station of General Chemical Division, Allied Chemical & Dye Corp. at 642 Third Avenue North, Birmingham, Ala., has been announced marking another important addition to the company's facilities in the South. General Chemical is one of the nation's principal producers of industrial, agricultural and scientific chemicals, and will make these new facilities a major distribution point.

According to the company, the modern one-story warehouse is especially designed to carry the wide range of process and laboratory chemicals required to meet the South's diversified industrial needs. Particular emphasis will be placed on chemicals used for manufacturing textiles.

An outstanding feature of the distributing station is a special "controlled-temperature" storage room for high purity laboratory reagents in which the temperature and humidity are held at constant levels at all times. According to the company, this innovation is the first of its kind in the South, and makes it possible to maintain these chemicals in the "factory-fresh" condition necessary for many exacting uses.

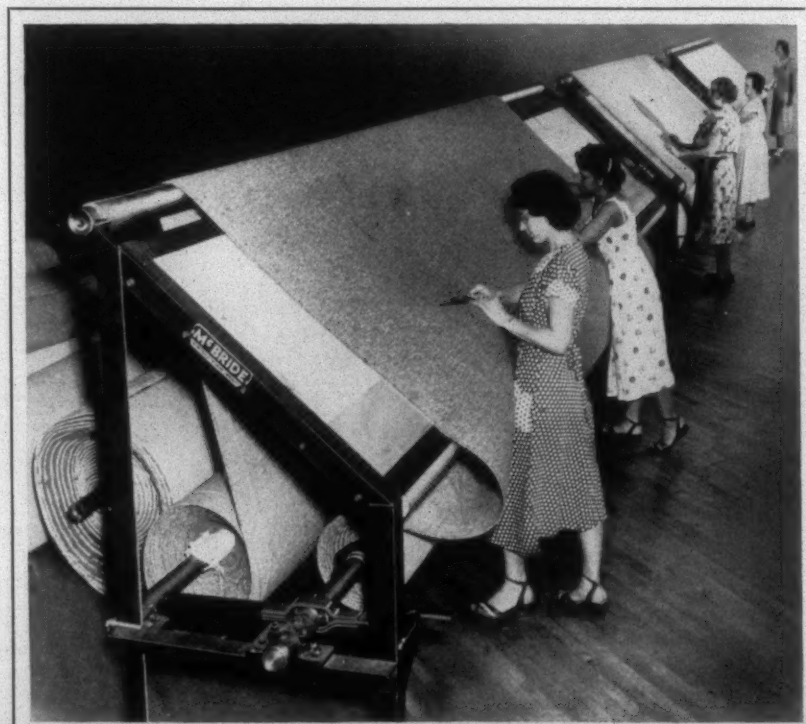
In addition to this new Birmingham location, General Chemical also has many other producing and distributing facilities in the South. They are located at Atlanta, East Point, Savannah, and Macon, Ga.; Baton Rouge, Monroe and Marrero, La.; Charlotte, N. C.; Jacksonville, Fla.; Pulaski and Front Royal, Va.; and Nitro, W. Va.

Emery Grinding Fillet

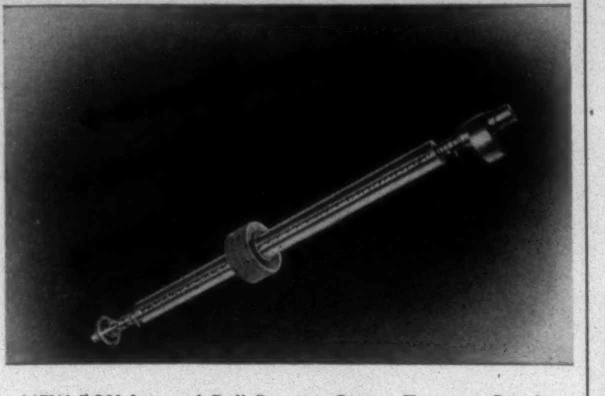
The Carborundum Co., Niagara Falls, N. Y., announces development of a new emery grinding fillet for the textile industry. The company states that the major use of emery fillet is in the mills, where it is used almost exclusively for the reconditioning of card clothing. It is said to be made of the finest Turkish emery, with all the grain particles anchored tight so that there is no shedding of particles into the grooving. The company states that the emery fillet gives a uniform spark flow and sound througout the grinding, resulting in uniformly finished card clothing. The company offers the new product for immediate delivery.

Link-Belt Book

A new 44-page Book No. 2410 on coal and ash handling equipment for power plants, has been published by Link-Belt Co., Chicago, and is now available for distribution. The book contains helpful layout drawings and interesting photographs of actual installations. It is truly a book of ideas and suggestions for solving the coal and ash handling problems of today's power plants. The pictures include installations at both large and small public utility, industrial and public building plants. And they show installations at new power plants as



NEW POWER-DRIVEN CARPET INSPECTION AND MENDING TABLES have recently been announced by Edward J. McBride Co., Inc., of Philadelphia, Pa. These tables place the work directly in front of the operator and eliminate completely the old problem of individual handling of a carpet during inspection with resultant saving in fatigue of the operator. The direct time saving made possible by this unit is fully 50 per cent, according to reports from the first installations that were made. In subsequent installations it is anticipated that greater savings can be accomplished where plant conditions permit more thorough use of the mechanized materials handling features included in the McBride design.



NEW ROY Internal Ball Bearing Cotton Traverse Grinder gives you smoothest grinding action ever known. The grinding wheel floats back and forth across the tube giving the wire a breezing touch action and accurate side grind.

This advantage—the result of long experimentation with various types of ball bearings—means added years of service when properly installed in a new as well as an old grinder.

B. S. ROY & SON COMPANY

Established 1868

Worcester, Mass. — Charlotte, N. C.

Sales Engineers in the South:
Charles E. Hendrick—L. P. Bell
Office and Plant, 1623 North Tryon Street, Route 29,
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WENTWORTH

Double Duty Travelers

BEWARE OF CHEAP IMITATIONS

Reg. U. S. Pat. Off.

HICKS — AMERICAN — WILSON — U. S. STANDARD

Last Longer, Make Stronger Yarn, Run Clear, preserve the SPINNING RING. The greatest improvement entering the spinning room since the advent of the HIGH SPEED SPINDLE

NATIONAL—ETARTNEP FINISH
A NEW CHEMICAL TREATMENT

Manufactured only by the

NATIONAL RING TRAVELER CO.

PAWTUCKET, R. I.
131 W. First St., Charlotte, N. C.

PRECISIONED TO SIZE — PRECISIONED FOR CONCENTRICITY — PRECISIONED FOR YOUR SPINDLES

PRECISION BOBBINS*

with NEW LONG-LIFE FINISH

made to YOUR specifications

for SILKS and SYNTHETICS

PRECISION
N·E·B
BOBBINS

*For SILK and SYNTHETICS — COTTON and SPUN RAYON — WOOLENS and WORSTEDS

NEW LONG-LIFE Finish on NEB PRECISION bobbins prevents yarn abrasion and snagging, resists pull and "crush" of nylon . . . smooth, polished, HARD, LONG-LIFE Finish means clearer weaving . . . no hairy or chafed filling with even the most delicate filaments . . . try NEBs with LONG-LIFE Finish on *your* looms — and compare!

NEW ENGLAND BOBBIN & SHUTTLE CO.

Makers of PRECISION Automatic Loom Bobbins

NASHUA, NEW HAMPSHIRE

Representatives:

HENRY H. HERSEY
Norwood Place
Greenville, S. C.

HARRIS MFG. COMPANY
443 Stonewall St., S. W.
P. O. Box 1982, Atlanta, Ga.

H. W. CURTIS
735 W. Crescent Ave.
Allendale, N. J.

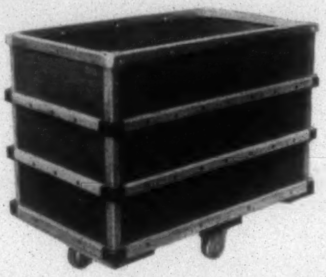
THE CHARLOTTE SUPPLY CO.
Charlotte, N. C.

Export Agents
VANDERBURGH & CO., INC.
25 Beaver Street
New York 4, N. Y.

HARRIS & UNDERHILL
446 Statler Building
Boston, Mass.

For long and satisfactory Service

The Excel No. 1000 Fibre Truck



This is a sturdy truck upon which you can depend for long and satisfactory service.

Compare its specifications with those of any other fibre truck.

- .090 vulcanized fibre, securely riveted to hardwood rails with solid steel rivets. These solid rivets are placed at short intervals to prevent buckling.
- Hardwood solid or slatted bottom, sanded to a smooth finish.
- Heavy duty metal top rail.
- Heavy duty metal corners.
- Casters securely bolted to bottom.
- Finished in clear lacquer, or painted, for added protection against moisture.

Representatives:

Mr. N. W. Eurey ...... Lincolnton, N. C.
Mr. Paul Eurey ...... Lincolnton, N. C.
Industrial Suppliers, Inc.
La Grange, Ga.
Fall River Mill Supply Co.
Fall River, Mass.
Mr. Theodore Huston
2601 N. Broad St., Philadelphia, Pa.

EXCEL
Textile Supply Co.
"Excel Trucks Excel"
LINCOLNTON, NORTH CAROLINA

well as boiler houses that were modernized, enlarged or improved after the original installation. There are sections in the book on unloading coal, auxiliary unloading, coal storage and reclaiming, crushers, transporting and distributing equipment, ash handling, and water intake screens. A copy of new Book No. 2410 will be sent to any interested reader upon request.

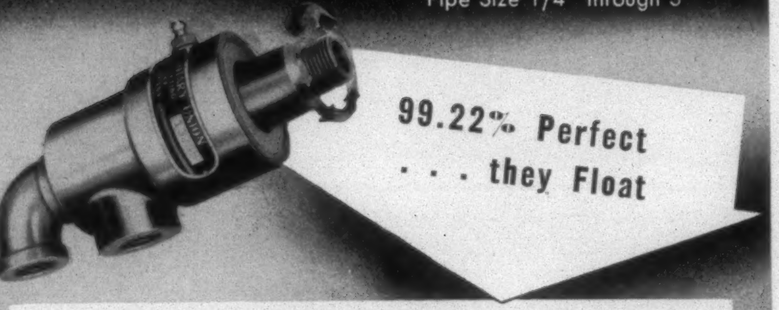
Kemysal

Development and production of the chemical product, Kemysal, is announced by the Flax & Fibre Institute of America, Chicago, Ill., for the processing and treating of cotton, wool, linen, and other natural and synthetic fiber goods to give either anti-fungus, anti-mildew and anti-deterioration properties permanently. According to Dr. Howard D. Salins, managing director of the institute, Kemysal is not a resistor, but is a positive proofing agent against fungus, mildew and deterioration. He states further that the new product is anti-toxic, anti-disease and anti-bacterial in its properties, is not a coating but an indestructible penetrator of both fiber of fabric or other material and enhances the values of each in any form.

Allis-Chalmers Bulletin

Allis-Chalmers package pumps engineered for a wide range of fractional horsepower applications, including air conditioning, in capacities to 80 gallons per minute at heads to 100 feet are described in a new bulletin released by the company. The pump unit is available in four different types—open and closed impeller close-coupled, pedestal-mounted, and open impeller vertical mounting type. The latter has a special cover plate and flange. The pedestal mounted type is essentially the same as the open and closed impeller close-coupled type except that a bearing bracket is substituted for the motor. Performance data and dimensions for the various types are given in the bulletin. The closed impeller unit is available in one by three-quarters and 1¼ by one-inch sizes and the open impeller in one by one and 1½ by 1½-inch sizes. Copies of the bulletin, "Allis-Chalmers Package Pumps," 52B7529, are available upon request from Allis-Chal-

ROTARY UNIONS
(TRADE NAME)
A REVOLVING STEAM CONNECTION
Pipe Size 1/4" through 3"



Less than 8 out of every 1000 ROTARY UNIONS fail to meet our guarantee of one year's normal service without any kind of tightening or adjusting labor. That's wonderful news for mill mechanics who are plagued with Saturday morning repair headaches or week-day down-time on old-fashioned stuffing boxes, packing joints, or ordinary steam connections on slashers, dry cans, calenders, printing, or coating machines.

ROTARY UNIONS *float* on built-in flexible hose connections which absorb misalignment and shock. Unusual internal construction prevents stress and strain on moving and sealing parts. ROTARY UNIONS are the most efficient and economical steam joints you can get. Write for Catalog 600 B for full information today.

PERFECTING SERVICE COMPANY
332 Atando Ave. (Home Office and Factory), Charlotte, N. C.
Offices in Chicago • Cleveland • Philadelphia • Providence • Jersey City

"WHERE *Good Connections* COUNT"

mers Mfg. Co., 1052-S. 70th Street, Milwaukee, Wis.

Drum Handling Device

A new horizontal drum handling device that can be attached to any industrial fork truck without removing the forks or making any hydraulic or mechanical connections is now available from the Philadelphia Division, Yale & Towne Mfg. Co. Completely automatic, the new device is a self contained unit that fits over the forks and is fixed to them with two screw type clamps.

One or two standard drums can be picked up with the Yale drum handler by simply lowering it over them while the truck is slowly backing away. The rear clamps are spring loaded and snap under the lip of the drum. When the drums are lifted, gravity action locks the clamping hooks in place. There is no load on the springs at any time, the company states. Depositing the drums is just as easy as picking them up. The drums are lowered, the truck is moved forward (stretching the springs on rear clamps) and as soon as the forward clamps are free, the channels on the truck are tilted back. The truck is then backed away to free rear clamps.

Despite the simplicity of the Yale handler, it is safe and efficient. Loads will not drop with sudden stops, when traveling over a rough surface, or when truck channels are tilted. The attachment weighs 270 pounds and permits the drums handled to be filled with any common material. Drums may be stacked to any height within the lifting range of the truck.

Combination Fungicide

A new combination fungicide has been engineered by Nuodex Products Co., Inc., of Elizabeth, N. J., to provide mildew resistance to cotton duck used for tents, canvas containers, etc., in accordance with government specification MIL-D-10860.

This product, called Nuodex Copper QN-18 per cent, is easy to incorporate in total treating compositions since it is a readily dispersable paste that flows at room temperature. It combines copper hydroxy naphthenate and copper 8-quinolinolate in one product. In practice, it will mean to textile proofers and manufacturers the saving of time, labor, and expense involved in preparing the combination themselves, which often entails grinding and dispersing the fungicides.

Other products which the government

THE "JUNIOR CLEANER"
(Patent Pending)

Does a "Man-Size" Job!

For use between hopper and conveyor.

Delivers to regular cleaning line.

Completely opens and pre-cleans small amount of cotton delivered to each hopper in battery, so that machines in regular cleaning lines do *more cleaning* with *less staple breakage.*

Requires 43" between hopper and conveyor table.

PROVED BY TEST

Shown above is a complete installation of "JUNIOR CLEANERS" in opening room of an Alabama mill.

Manufactured by

GASTONIA TEXTILE MACHINERY CO.

GASTONIA, NORTH CAROLINA

specified should be protected in this manner include: tarpaulins, barrack bags, arctic sleeping bags, belts, leggings, and truck covers or tops. Also treated are various weights of duck used for work gloves and shoes with canvas uppers, as well as light weight duck used in laminated clothing. Nuodex states it has an extensive line of mildew-proofing agents engineered to meet all major government specifications for textile fungicides.

Norcross Viscometer

The Norcross Corp., Newton 58, Mass., is now manufacturing a viscometer designed to be used with homogenizers preparing warp sizing. The measuring element of this viscometer is easily installed so as to measure the viscosity of the size as it is delivered from the homogenizer. The measured viscosity is registered on the 24-hour chart providing a permanent viscosity record of all the size prepared by the homogenizer. This is particularly important for night shifts where adequate supervision cannot always be maintained.

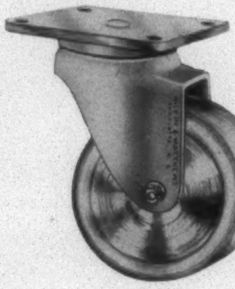
The recorder of the viscometer is conveniently located where adjustments can be readily made in the homogenizer pressure as may be necessary to maintain the correct viscosity. The instrument indicates variations in size which is often appreciable with different shipments. In addition, the viscometer furnishes a check on possible human errors made in preparing the size formula. Mills report that the viscometer assures uniform sizing essential for maximum weaving efficiency and optimum quality in the final product.

Raybestos Bulletins

Ray-Man "F" conveyor belt, recently developed with an engineered strength member which is claimed to offer several importane advantages over conventional duck belts, is described in a bulletin issued by Raybestos-Manhattan, Inc., Manhattan Rubber Division, Passaic, N. J. Copies may be obtained by requesting Bulletin No. 6915. According to the manufacturer, Ray-Man "F" is a general purpose heavy-duty conveyor belt designed for application where there is danger of tearing or puncture, where small pulleys are used, where more flexiblity is required, where better fastener life is needed, and where thick, narrow belts are required. This belt is said to compliment to range of applications covered by Manhattan's homocord and homoflex belts.

A bulletin describing the "precision balanced" and "more grip, less slip" features built into the improved Condor V-belts may be obtained by requesting Bulletin No. 6868-E. Straight sidewalls and straight-in-line cords in the strength member are given as reasons why Condor V-belts are smooth running and long lasting. Construction features, based on recently developed pre-

Why WIL-MAT Casters Are Better



WIL-MAT Casters roll easier . . . and we can prove it by demonstration. They last longer because of heavier tread and stronger construction . . . won't wear to sharp edges . . . and their tread will not pick up grease, oil or grime. A trial will convince you.

. . . and they don't clog-up

WIL-MAT CASTERS
Ball Bearing
RIGID & SWIVEL
Wilkin & Matthews
Charlotte, N. C.

We Cut Your Labor Costs Materially

Textiles show the fastest rising labor costs in all U. S. Industry . . . and they are still rising fast.

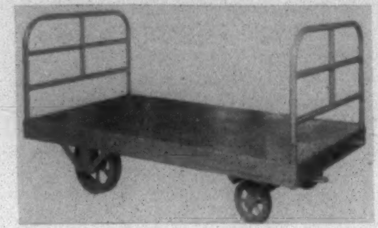
Materials handling is one of the biggest users of textile labor, and therefore the place where the largest savings can be made.

We engineer, build, and install conveyor and other materials handling systems which will cut your costs materially. Call on us for consultation.

Davidson
Engineering Co.
Winston-Salem
North Carolina

cision-control methods and stronger materials, are explained. Interesting installations are shown and a table of standard industrial sizes and list prices are included in the folder.

Medium Duty Trailer



Especially designed by Market Forge Co. of Everett, Mass., to replace the old-style wooden trucks, this new trailer is suitable for handling bagged material or to carry one or more pallets loaded with bagged material. The smooth steel construction with rounded corners and edges prevents bags and other materials from being torn—which was the major fault of the old-style wooden trucks, the firm states.

Each end of the trailer is equipped with tubular racks which are also carefully welded to prevent injury to material. These racks are removable. There are loops on each side for diagonal-type coupler rods. These rods permit backing with a tractor without "jackknifing." Specifications are: capacity, 3,000 pounds; length, 69 inches; width, 36 inches; height of end racks, 23 inches; height deck from floor, 14 inches. It is furnished with cushion rubber wheels.

Fire Protection Booklet

What one should know about modern fire-fighting devices and the different fire extinguishing agents used in them, is contained in a new 32 page illustrated booklet titled *Correct Fire Protection*. It is published by the American-LaFrance-Foamite Corp. of Elmira, N. Y. Since it is universally known that all fires are not alike, it is of essential importance that operators of fire extinguishing equipment know the correct fire extinguisher for use on the kind of fire to be extinguished. This new educational booklet not only makes this important information clear, but it also illustrates and describes the various sizes of units available for use with the different kinds of fire extinguishing agents. Single copies are available free of charge to those interested in knowing more about how to stop fires at the start and before they can cause serious damage.

Color Merchandising Program

Switzer Bros. in co-operation with Aberfoyle Mfg. Co. is planning a comprehensive and intensive color merchandising program for all levels of the industry, the first ever to be launched either by a dye manufacturer or a yarn firm. The long range program, destined to provide color consultation, color clinics, joint color promotions and consumer advice, will be directed primarily in behalf of Day-Glo yarn licensees and retailers. It is being designed to provide expert advice on the application and presentation of colors as a result of requests

Just how good CAN you get?

It takes a whale of a golfer to shoot par for the course . . . but tournament *champions* shoot even *better* than par, by a few strokes. That "few strokes" improvement results from special attention to the fine points of the game.

In textile production, too, even *good* efficiency can be improved. For instance, it's entirely possible that a certain starch . . . perhaps even tailor-made to your own specifications . . . could contribute to an efficiency gain.

Why not call your Anheuser-Busch representative? He'll be glad to come and talk it over.

CORN STARCHES
DEXTRINES
GUMS
CORN SYRUPS

Phone or write

ANHEUSER-BUSCH, INC.
CORN PRODUCTS DEPARTMENT
ST. LOUIS

ST. LOUIS, MO.
721 PESTALOZZI

CHARLOTTE, N. C.
607 JOHNSTON BLDG.

NEW YORK, N. Y.
33rd & 12th AVE.

FOR THE TEXTILE INDUSTRY'S USE—

for such services by members of the textile industry.

The requests, according to a joint statement by J. P. Holt, president of Aberfoyle Mfg. Co., national Day-Glo yarn distributors, and Ronald J. Elliott, Switzer executive vice-president, resulted from the terrific impact made by Day-Glo yarns during the past few lears.

Also announced was the fact that Switzer Bros. had retained Lorain Fawcett, head of Allcolor Co., Inc., New York, and one of the country's leading color consultants, to assist the two firms and Day-Glo licensees in planning and carrying out the new program. Miss Fawcett is a lecturer and author on color. Among her clients are Berkshire Knitting Mills, General Electric Co., Bendix Radio Corp., Congoleum-Nairn, Mohawk Carpet Co., Richard Hudnut and others. Those, in addition to Mr. Holt and Mr. Elliott, who will handle the program are J. S. Kenrick, vice-president of Aberfoyle in charge of sales development; William Galey, also an Aberfoyle vice-president, and Tom Little, manager of the Day-Glo textile division of Switzer Bros.

Following is the joint statement: "We have been aware of the tremendous impact made by daylight fluorescent yarns in the textile field in this country and abroad. Day-Glo yarns, however, are completely new and obviously different than any yarns ever to reach the textile field. They deliver exceptional visual impact and provide potentially the greatest future for the textile industry in view of the fact that color is playing such a vital part in merchandising today. The application of the Day-Glo yarns has progressed so rapidly, the average manufacturer and retailer actually have not yet learned how to handle them discreetly and to their best advantage with other colors.

"There is an urgent need to have specialists present the science of color to the textile industry. The trade recognizes this need as do Switzer Bros. and Aberfoyle Mfg. Co. It is important that the trade be shown how these colors can best be employed to complement and supplement normal colors so that innumerable new markets can be opened up in the near future.

"Our color merchandising program is designed to help in the education of every level of the industry. We feel it is important that even retail sale personnel be trained in the proper way to present these colors to the public. Day-Glo colors have been used to excess on many occasions and have not been applied properly on others. The complete program is expected to be ready for presentation to the industry in the near future."

Chemical Firm Expands

Amalgamated Chemical Corp., Philadelphia, Pa., has just completed another step in its far-reaching expansion program begun in 1949. The principal piece of new equipment in this $50,000 expansion program is a 750-gallon glass-lined reactor equipped with condensers and receivers for operation under vacuum. Automatic controls, including a three-stage vacuum steam jet, insure operation at proper reaction temperatures. A new, fully-automatic generating plant controls its independent operation.

Other features of the program include an enlarged research and consulting service deaprtment, new air-conditioned offices and a greatly increased capacity for synthesizing chemicals.

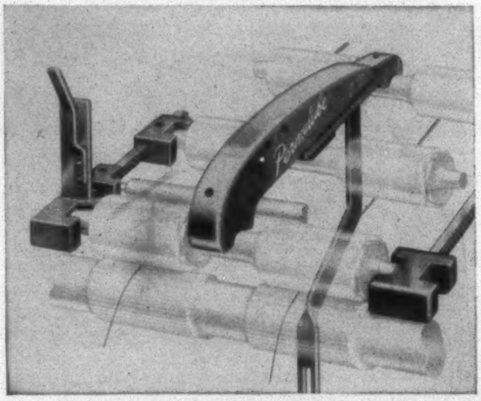
"Our production capacity is now at its highest peak since the founding of our company in 1939," according to Harold B. Dohner, president. "We intend to use our new facilities for manufacturing new members of the Amalgamated family of surface-active agents, the Dynesols and Nionines, and also for new products now being released for general sale.'

In order not to interrupt production, all improvements were made during the usual business slow-down that occurs during the Summer months. It has been the policy of the company to take advantage of this slack period each year to develop new facilities that will improve its service to the wet processing industry.

Safety Scoreboard

Industrial Products Co. announces a new safety record sign. Designed to act as a constant reminder of days worked without a lost-time injury, conveys the thought that responsibility rests with each and every employee. The IPCO safety scoreboard is 20 inches wide by 30 inches high, large enough to be seen at a distance. Attractively

Better Service at Lower Cost



with WHITEHEAD
Permalube
OILLESS BEARING
SADDLES
and NEBS

Now your mill can use Whitehead Permalube Saddles and Nebs at a first cost that is usually less than for old-fashioned iron saddles and nebs. There never has been a comparison of second costs, for Whitehead Permalube Saddles and Nebs eliminate oil from rolls and yarn, reduce cleaning, won't score the rolls, can't cock or wander. You can install them and forget them.

Over 500,000 Spindles Now Equipped With These SELF-OILING Products

The new, improved Whitehead Saddles are being used in over 150 mills on more than half a million spindles. More and more mills are changing systematically to Whitehead Permalube assemblies exclusively.

Only Whitehead Permalube Products Offer These Money-Saving Features

- Years of trouble-free service
- No oiling of Permalube—Infrequent oiling of Oilite.
- No oil on yarn from top rolls
- Less lint accumulation
- Easier picking—less often
- Very low friction coefficient
- Aluminum bearing holders won't score rolls
- Pivot point permanently adjusted
- Saddle self-aligning. No tilting
- Bearings quickly replaced if ever necessary for only 3c to 5c each

NEW! BRONZE OILITE INSERTS IN PERMALUBE

Now furnished as standard in front saddle and neb bearings.

Solid Bronze Oilite front saddle bearing is also available for extra heavy loads and scored roll necks. (This requires a few drops of oil every few months.)

We have Saddles and Nebs for most all forms of drafting and invite you to

TRY THEM FREE!

Send us a right-hand and center neb and a saddle of the types you are now using and indicate the number you need for one side of your most troublesome frame. We will furnish a complete set of nebs and saddles for one side absolutely free of charge or obligation. But we warn you—once you've tried Whitehead Permalube Saddles and Nebs, you'll want them on all your frames.

Prompt Delivery from Ample Stocks

PATENTED AND MANUFACTURED BY
WHITEHEAD ENGINEERING CO.
522 WEST PEACHTREE STREET, N.W.
ATLANTA 3, GEORGIA

EXCLUSIVE DISTRIBUTORS
Meadows Manufacturing Co.*
BOX 4354 • ATLANTA, GEORGIA

***SEE YOUR MEADOWS MAN**
SOUTH CAROLINA
J. P. Coleman, Box 1351, Greenville, S. C.
NORTH CAROLINA
Walter Coleman, Box 782, Salisbury, N. C.
NORTHERN REPRESENTATIVE
Matthews Equipment Co., 93A Broadway, Providence, R. I.
ALABAMA, GEORGIA, MISSISSIPPI
Sam Hogg, Box 4354, Atlanta, Ga.

finished with green background and white letters, it features two blackboard finish panels enclosing the word "days" so that it may be kept up to date by marking in with chalk. Manufactured of 20-gauge metal and finished in baked dulux, it is suitable for both indoor and outdoor use. Full information may be obtained by writing to Industrial Products Co., 3132 N. Fourth St., Philadelphia 33, Pa.

New Book Published

Boiler Feed Water Treatment, by F. J. Matthews, has just been published by Chemical Publishing Co., Inc., 212 Fifth Avenue, New York, N. Y. The chemical treatment of boiler feed water, which has been the source of many operation troubles, is the topic of this third revised and enlarged edition. The results of recent research in this field, the new developments in plant construction, the revised views on problems, such as caustic embrittlement, carbonate and phosphate conditioning, the mechanism of scale formation, priming and production of wet steam, are included. Much new material has been added on silicate scale, hydrogen and demineralizing zeolites, colloidal conditioning, use of metaphosphate, the Budenheim process, electrical scale prevention, the prevention of turbine deposits, and economizer scaling and corrosion. The different types of natural waters are discussed in detail. Along with the presentation of the principal operating troubles, a critical survey of the available corrective methods is given. The last part of the book is devoted to water analysis and testing methods. There are many illustrations, tables, and pertinent references for those who are interested in further details. The book contains 207 pages and is $4.50 a copy.

New Nylon Warp Sizing

American Polymer Corp. of Peabody, Mass., announces the production of polyacrylic acid (under the designation Polyco 437) as a base for nylon warp sizes. Polyco 437 offers a sizing unexcelled for effectiveness and versatility for use on yarns for weaving. Polyco 437 is an aqueous solution of poly acrylic acid which is easily diluted with tap water and is easily removed after knitting by scouring. Adhesion to nylon is outstanding. Its use also prevents excessive soiling during processing of yarn. For further information write for data sheet No. P-31.

Occupy New Office

The Rohm & Haas Co. Nov. 1 occupied its new Southern sales office and warehouse at 302 Lawton Road, Charlotte, N. C. P. H. del Plaine is manager of the Charlotte office and W. A. Wardell is assistant manager. Former offices at 1109 Independence Building in Charlotte have been closed.

For additional Personal and Mill News, see "Before Closing Down"

Booth *Originators of* **STRIP-O-MATIC ***

CARD CLOTHING NEWS AND VIEWS

REMEMBER BOOTH FOR QUALITY CARD CLOTHING OF ALL KINDS

PRODUCERS SINCE 1892

WHAT **STRIP-O-MATIC** USERS SAY:

"Considerably Less Shrinkage with STRIP-O-MATIC"

I have reported to you often on the performance of ***STRIP-O-MATIC,*** now I'd like to have you read just what Mr. Paul Benninghofen of Shuler & Benninghofen, manufacturers of Papermakers Felt Jackets in Hamilton, Ohio, recently wrote to a friend in another mill:

"Acknowledging your letter of Dec. 13th, the first breaker on one of our card sets is equipped with ***STRIP-O-MATIC*** card clothing. It has been in service about 3 months.

"We are sold on this type of card clothing. We find the shrinkage is much less, the production is much higher, the yarn is much better quality.

"When we equipped this particular first breaker with this card clothing, we needed only a new cylinder. However, in order to give it a fair trial, we also re-equipped workers and strippers. The doffer, however, was not changed.

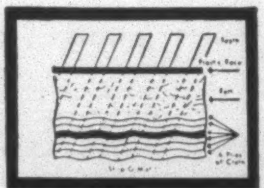
"We find the use of this card clothing enables us to strip the cards much easier. We use a vacuum stripper and it works to much better advantage on card clothing of this type.

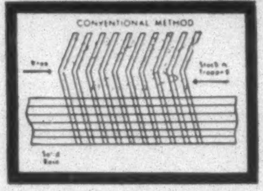
"As our card clothing needs replacing, we intend to use ***STRIP-O-MATIC.***

"Yours very truly,
SHULER & BENNINGHOFEN
Paul Benninghofen."

*Patented ®

This letter is typical of the comments of the many pleased users of ***STRIP-O-MATIC.*** We sincerely believe that you, too, will find ***STRIP-O-MATIC*** gives you better carding at much lower cost. The drawings comparing ***STRIP-O-MATIC*** and conventional card clothing show why ***STRIP-O-MATIC*** runs virtually without stripping—saves time—saves labor—saves money. A booklet describing ***STRIP-O-MATIC*** and presenting the case history of an interesting and successful user is yours for the asking. Write today to Benjamin Booth Company, Dept. T.B. This folder may well start you on the way to substantial savings in the operation of your cards.





Sincerely yours,

E. Allen Snape, Jr.

E. Allen Snape Jr

President

BENJAMIN BOOTH COMPANY

Representative: Oliver D. Landis, Inc.
718 Queens Road, Charlotte 7, N. C.
Exclusive Sales Agent—North Carolina,
South Carolina

Established 1892

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Improved Picker Stick Check Patented

Patent No. 2,535,814 has been issued to Franklin A. Ritchie of Charlotte, N. C., for a picker stick check for looms. This invention relates to an improved picker stick check adapted for a loom to be secured to the lay, at opposite ends thereof, and which has means for frictionally engaging the picker stick upon the shuttle being thrown into the corresponding shuttle box and also has other means to release the pressure of the friction means against the picker stick immediately before the picker stick again throws the shuttle out of the corresponding shuttle box and across the lay. Grant of the patent was announced by Paul B. Eaton of Charlotte, N. C.

Another newly-patented item in the weaving field includes a thread extracting, clamping and cutting device for looms, for which George F. Bahan of Greenville, S. C., has received Patent No. 2,529,758. It is concerned with an improved means for withdrawing the filling from a bobbin in a boxed shuttle in the shuttle box of a loom and for clamping and severing the filling thread immediately prior to this particular bobbin being replaced by another bobbin by a replenishing operation, to thereby avoid the accumulation of so-called loose ends and to prevent loose ends from being carried back into the warp at the selvage of the cloth which, if not avoided, would produce defective cloth.

Patent No. 2,532,950 has been issued to Harold E. Schaller of Boston, Mass., assignor to Scotland Mills, Inc., for a shuttle guard. This invention relates to an improved shuttle guard for looms which is adapted to be secured to the reed cap on the lay of the loom and having means normally urging the lower edge of the same outwardly away from the reed. Other means are provided to hold the shuttle against the reed in the event of its breaking out of the shed to thus minimize the possibility of the operator or a person standing nearby being injured if the shuttle is thrown out of its prescribed course.

Synthetic Broad Woven Output Declines

Production of rayon broad woven goods totaled 597 million linear yards in the second quarter of 1951, six per cent below the first quarter output but seven per cent above that for the April-June, 1950, period, it is announced by the Bureau of the Census, Department of Commerce. The production of 100 per cent nylon fabrics showed a slight drop but was still 45 per cent above the second quarter last year. The only group showing an increase over the first quarter was the group comprised of silk and synthetics other than rayon and nylon, which registered a four per cent increase.

Of the total of 597 million linear yards of rayon fabrics produced during the second quarter, 595 million were produced on cotton, rayon or silk looms and the remainder on woolen and worsted looms. On June 30, 1951, there were 1,223,266 spinning spindles in place, 1,595,977 twisting and throwing spindles, and 118,442 looms.

Total yarn consumed in the second quarter was 215,472,000 pounds compared with 222,611,000 in the first quarter and 190,247,000 pounds in the second quarter of 1950. Of the total yarn consumed in the second quarter 187,984,000 pounds was rayon, 5,979,000 was cotton, 7,039,000 was nylon, 115,000 was 100 per cent wool, and 14,355,000 pounds was all other yarns (including blends and mixtures.)

New Dye Formula For Army OD-7 Webbing

A revised dye formula for production of Army webbing in the OD-7 shade will be required in future procurements, it was announced recently by the New York Quartermaster Procurement Agency. Manufacturers of Army webbing should scrutinize all future requests for negotiated or advertised bids with particular reference to the specified shade, the announcement said.

Although the nomenclature for the OD-7 shade remains unchanged, the dye formula for this shade has been revised. It was explained that while the new OD-7 shade to be used on webbing shall be the same visual shade as that of the OD-7 shade which the Quartermaster Corps has been procuring for the past two years, the new dye formula utilizes the same dyestuffs as those required for field uniform fabrics in the OG-107 shade.

When the new OD-7 shade is desired, the webbing will be dyed and finished to match an approved shade standard using the following formula of vat dyes: vat olive T; vat olive B, prototype No. 293 or vat olive GGL; vat khaki 2G, prototype No. 122 shaded with either or both of the following: vat brown R, color index 1151, or vat yellow of suitable fastness.

Provision will be made in the dyeing of the fabric to compensate for any color effects introduced by the finishing chemicals so that the combined color of the vat dyed shade and the color of the finishing chemicals shall produce a match to the OD-7 standard shade sample.

New Technical Paper On Homogenized Size

A new technical paper titled "A Study of Certain Aspects of the Homogenization of Cotton Warp Size" is now available. An impartial, scientific comparison of homogenized and boiled size, it compares the strength and elongation of yarns made with the different sizes, their degree of fiber lay, penetration, coating, and advances a new theory on bonding yarn fibers. It also explains why homogenized size reduces shedding at the loom and at the slasher, and makes a yarn that weaves more efficiently. In addition, it shows how Gaulin-Homogenization permits accurate, dependable control of viscosity resulting in a stable, uniform size. Copies of this report may be obtained free by writing Manton-Gaulin Mfg. Co., 70 Garden Street, Everett 49, Mass.

Stress Need For Universal Fiber

There is a vital need for a universal fiber to meet all end-uses, Robert A. Smith, chief of the worsted and wool division of the American Viscose Corp., told a wool productivity team in Philadelphia under E.C.A. auspices at a seminar at the Philadelphia Textile Institute. He pointed out that when a new fiber is introduced it has always meant end-use experimentation in a wide range of fabrics. He suggested

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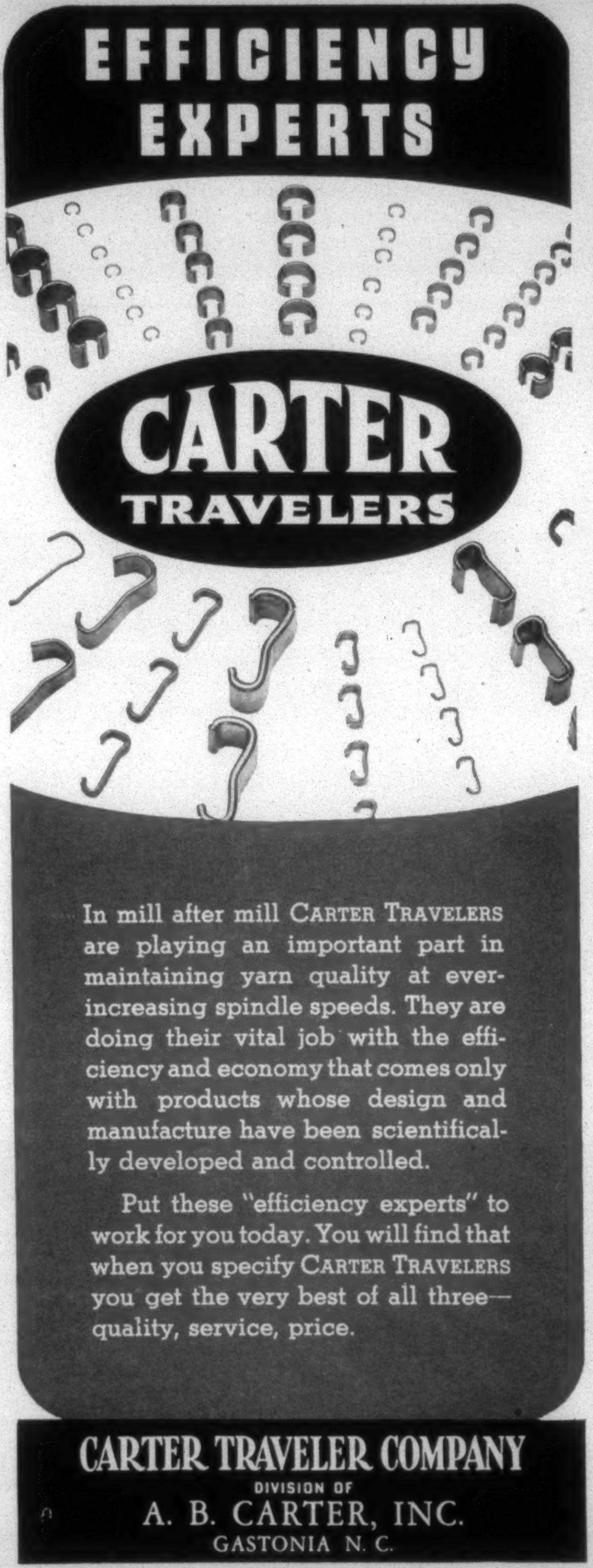

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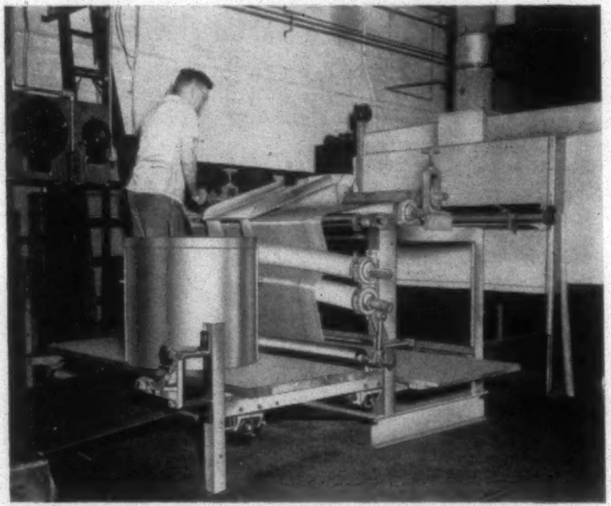
that research be directed towards studying the requirements of fabrics and then the characteristics of various fibers to see which contains the properties needed and wanted.

Mr. Smith also told about the new Pacific converter which American Viscose Corp. has been using. He said his company was making headway with the converter and was trying to improve their technique. The economy of operation of the converter method as opposed to the usual methods has not been determined as yet, he added. However, he had heard from sources using the Pacific converter that there has been savings on rayon up to four cents a pound.

New Application In Coating Industry

The Mount Hope slack selvage eliminator, designed two years ago for application on shearing machines, has recently found a new application in the coating industry. Slack selvages are a serious problem in coating, causing uneven coating, slowdowns in production and second grade material.



The Mt. Hope slack selvage eliminator in operation at Buchanan, N. Y., plant of Interchemical Corp. coated products division.

The Interchemical Corp., coated products division, Buchanan, N. Y., was faced with this problem in coating nylon to make poncho material for government contracts. This company turned to the Mount Hope Machinery Co., which specializes in cloth handling devices, and this problem was quickly solved by incorporating a Mount Hope slack selvage eliminator ahead of their coating head.

The Mount Hope slack selvage eliminator consists of a brass spring tension pivoted idler roll that takes up the slack on either selvage of material being handled and two free wheeling expanders that spread out and hold the material smooth and flat as it enters the coating head.

Duplan Annual Report Wins 'Oscar'

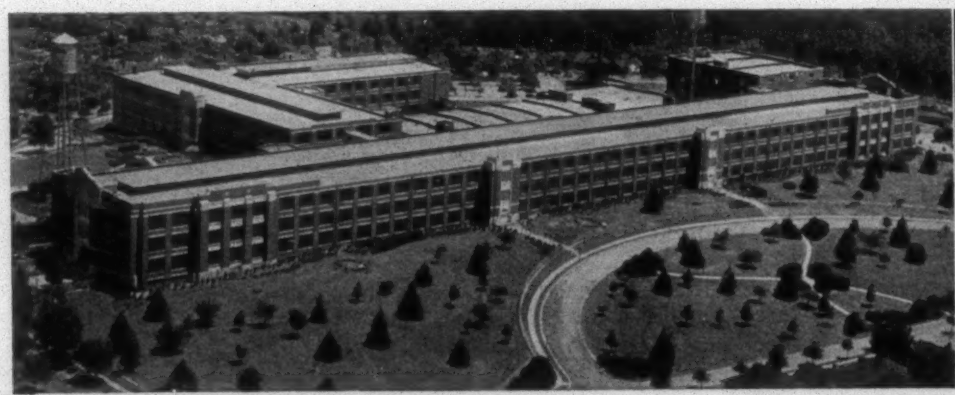
The Duplan Corp. has been awarded the bronze "Oscar of Industry" for producing the best 1950 annual report of any of the synthetic fiber weavers in the country. The award is made annually by *Financial World* magazine and is presented at the annual awards banquet in the Grand Ball Room of the Hotel Statler in New York. The banquet is attended by 1,300 business and financial executives from all over the United States and Canada.

A total of 5,000 annual reports were considered this year in the international competition, the eleventh in the series of surveys, and these were judged in 100 industrial classifications for the "Best-of-Industry" awards. In the synthetic fiber weavers category Burlington Mills Corp. was runner-up for top honors, while Robbins Mills, Inc., was placed third.

Nuodex Report Aids Treaters, Proofers

A special report to assist treaters and proofers to determine the quantities of copper, zinc and mercury in treated fibers and fabrics has been released by Nuodex Products Co., Inc., of Elizabeth, N. J. Prepared originally during World War II to aid manufacturers in setting up control processes as protection against government rejection of insufficiently mildew-proofed fabrics, it has been revised and re-issued in the light of current intensified procurement.

The over-all efficiency of mildew-proofing processes involving fungicides containing metals can readily be predicted from the amount of metal deposited on the fabric.



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Since analysis of fabrics has been a matter of daily routine for the Nuodex laboratories, a study was made of a number of such methods to find the simplest, most accurate and easiest to conduct under practical working conditions.

Four simple methods were developed and are included in the report. With them, the amount of copper, zinc, or mercury can readily be determined by chemical analysis under practical conditions in fabrics treated with compounds of these metals.

Free copies of the revised edition of the report are offered to textile manufacturers or proofers seeking close chemical control of their fungicide treating operations.

Plan Annex At Greenville's Textile Hall

Construction is scheduled to begin soon on a one-story addition to Textile Hall at Greenville, S. C., which will add 8,000 squart feet to the big structure. Textile Hall is the scene of many events in Greenville, including the mammoth Southern Textile Exposition, scheduled for Oct. 6-11, 1952. Steel has already been purchased and N.P.A. officials in Washington have given official approval for construction of the annex.

Pittsburgh Plate To Make Fiber Glass

Pittsburgh Plate Glass Co. will enter the fiber glass production field in the near future, according to an announcement by Richard B. Tucker, executive vice-president of the firm. Formation of a separate development and production unit to be known as the fiber glass division is now in process. Two types of fiber glass, strand fiber and super-fine fiber, will be manufactured under licensing agreement with Owens-Corning Fiberglas Corp., Mr. Tucker stated.

The new division will be headed by J. Hervey Sherts, who will serve as general manager. Mr. Sherts has been associated with Pittsburgh Plate Glass Co. since 1928 and has been director of the firm's product development department since 1939.

"Entry of Pittsburgh Plate Glass Co. in the fiber glass production field is a normal extension of the firm's natural activities. In the new field the company can utilize its 68 years of technological background in continuous glass mass production and product development experience, especially in highly technical military aircraft applications, automotive, construction and related fields. In addition, the firm's paint division manufacturers Selectron, a highly versatile plastic widely used in plastic-fiber glass laminates. Pittsburgh Plate technicians have been active for many years in the development of the Selectron and fiber glass laminates," according to Mr. Tucker.

Consultants Set Up Long Fiber Division

Establishment of a new long fiber division under the direction of Germinal Giraudi, well known European textile engineer, is announced by Herbert L. Werner of Werner Textile Consultants, New York City. According to Mr. Werner, the new long fiber division has been added to his organization because of the tremendous impact rayon,

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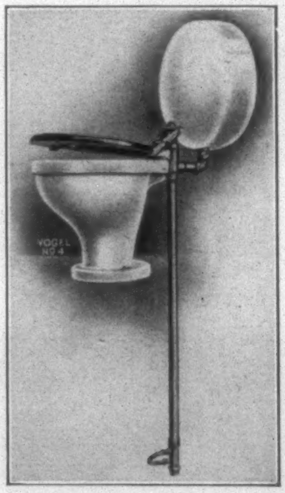

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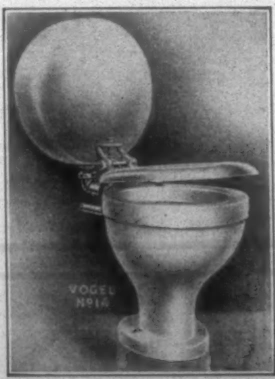

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VOGEL PRODUCTS

nylon, dacron, acrylic and other man-made fibers have had and are going to have on the textile industry. The textile industry is becoming increasingly aware of some of the exceptional characteristics of man-made fibers. These qualities are enhanced by the use of long fibers, which has opened up a completely new field for blends, Mr. Werner stressed.

Full utilization of this knowledge and its immediate application are bound to have a radical influence upon the entire wool and worsted industry and may well meet the dire need for stabilizing and strengthening the wool and worsted business and its vital position in the over-all economic picture. The new Werner-tex division, Mr. Werner stated, is prepared to advise mill management with regard to adaptation of existing machinery, specifications for new machinery, methods of blending and processing, and setting up of pilot plants.

Mr. Giraudi, who will head the new division, is a former general manager of the 60,000-spindle mill, "Cotonificio Carminati," in Gallarate, Italy, and president of Manifattura Gallo, a spinning and weaving mill in Genoa. More recently, he has acted as technical consultant to Robbins Mills and Snia Viscosa, foremost Italian manufacturer of synthetic fabrics, as well as for Filature de Wasquehal, a pilot plant built by the Association of French Rayon Manufacturers. Mr. Giraudi now makes his home in Fairlawn, N.J.

University Survey Of Industry Optimistic

A two-year survey, just completed by Colgate University, Hamilton, N. Y., offers a quietly optimistic picture of the cotton textile industry. Underlying the report is the conviction that the industry is shaking off the effects of the doldrums of the past two decades. The survey indicates growing emphasis upon textile research, with extensive laboratory facilities employed by large, progressive firms. Even greater emphasis is being placed on the discovery of new markets and development of old ones.

There is evidence of a steady movement toward integration of smaller firms and co-ordination of different processses under one executive control. Machinery and finishing processes have been rapidly and drastically modernized. There also appears to be an increasing independence of the capital market on the part of many firms and, with most concerns, a noticeable effort to cut production as consumer demand falls, rather than to pile up inventories.

Chief problems facing the industry are the inroads made by synthetic fibers, plastics and paper substitutes; the social and economic paradox of the Southern mill village; strained labor relations caused by work-load increases attendant upon new and more automatic machinery; the struggle to organize all textile workers; and the continued Southern advantage in labor costs despite union claims of equal pay for identical jobs.

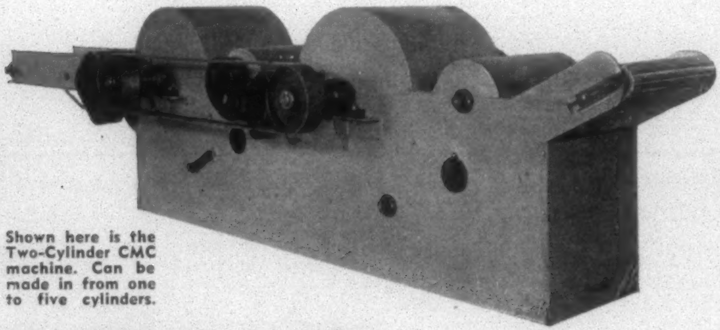
A.S.A. Committee Considers Rayon Standards

The American Standards Association announced recently that it has presented the Proposed American Standards for Rayon Fabrics to its consumer goods committee for approval or other disposition. These standards were submitted to A.S.A. by the National Retail Dry Goods Association.

The committee is made up of appointees from 30 national organizations, including groups representing government, consumers, service industries (laundries and dry cleaners), producers (weavers, finishers and processors) and retailers. Committee members will now review the proposed standards preparatory to taking action on them at their next meeting on Nov. 27.

The National Retail Dry Goods Association is sponsor for the rayon project, on which work began in 1949. It completed its work and turned the standards over to the American Standards Association early last month. "For the first time in the history of any fiber," N.R.D.G.A. spokesman declared, "we and our customers will have guaranteed performance qualities of the rayon fabrics in the garments and household fabrics marketed under these standards. This is a real achievement."

The 180-page proposed standards contain 31 test methods and cover 51 end-uses of rayon and rayon-mixed fabrics.



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Rayon is defined as any fabric which has 50 per cent or more of fibers made by viscose, acetate or cupra ammonium processes. Observance and use of the standards by producers, retailers and consumers would be voluntary.

First Orlon-Wool Blended Fabric Cited

The American Institute of Laundering recently awarded the Certified Washable Seal to the first Orlon-wool blended fabric to successfully pass rigid laboratory launderability tests. The new fabric, named Donella, is manufactured by Deering, Milliken & Co., Inc., for use in the women's wear field.

Containing 55 per cent wool and 45 per cent Orlon, Donella was found to retain 97 per cent of its original size after repeated washings in the institute's laundry-laboratory in Joliet, Ill. All colors of the fabric were repeatedly laundered and evaluated for dimensional stability, wash fastness, sun fastness, resistance to perspiration, crocking and tensile strength loss.

Donella was found satisfactory on all counts and even bettered the institute's residual shrinkage tolerance required for women's wear material.

Deering, Milliken & Co., in an effort to secure greater consumer acceptance of its new fabric, has instituted a quality control and labeling program. The firm has urged women's wear manufacturers to take advantage of combined Milliken and A.I.L. national advertising by using "Donella —Certified Washable Seal" hang tags, to identify their garments.

Ask Draft Consideration For Textile Workers

The importance of textile workers to any war effort should be recognized in the forming of plans for recall of reserves and National Guard components, as well as in draft-deferment policies, a textile association executive Nov. 2 advised members of the Quartermaster Association. Addressing the textile and knitted goods industry group at the association's annual meeting, F. Sadler Love, secretary-treasurer of the American Cotton Manufacturers Institute, recalled manpower troubles experienced by mills during the last war when large numbers of employees were called into the armed services because the essential nature of their work was not understood soon enough.

He urged military and manpower authorities to take due recognition of the fact that the production of fabrics for military uses is a vital defense job. Describing the textile industry's operations since the outbreak of Korean hostilities, Mr. Love credited co-operation between the Quartermaster Corps and the mills with having accomplished the task of supplying troops with essential textiles "where they were needed, when they were needed."

A second major goal created by the Korean war is the prevention of inflation, Mr. Love continued, but today as

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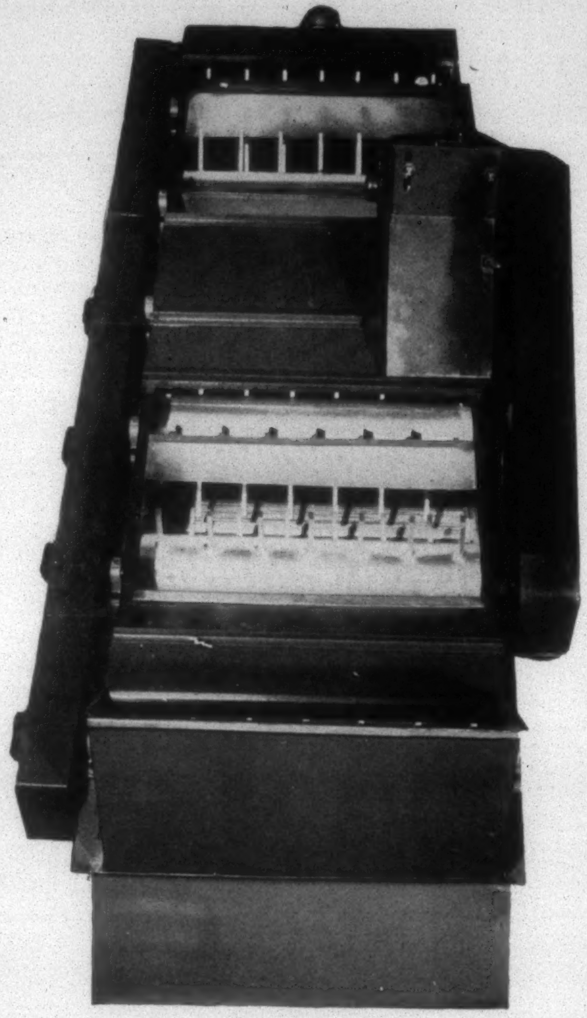

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the industry attempts to win the home-front battle against higher living costs, it finds itself in a "state of extreme deflation."

Within a matter of months, the textile situation has changed from one of increased production schedules, full employment and overtime pay for workers, to its present depressed condition of curtailment, reduced production and subnormal prices. "All told, I believe it is safe to say that our industry has not found itself in such a situation since the 1930s," Mr. Love commented. This decline began with the imposition of price controls, he pointed out, and he described the uncertainties and confusion arising from the control program as a principal cause of the difficulties mills have encountered.

"Looking at present market conditions in the industry, we find ourselves wondering why it is necessary to have price regulations at all," he said. "The standard print cloth construction known as 80-square was selling a few months ago for 28 cents a yard and today the market is fluctuating between 19 and 21 cents. We are not so narrow as to blame all this on O.P.S., but without hesitation we can say that under price controls which do not recognize the validity of simple economics, this industry cannot make its maximum contribution to the defense of the United States."

Assurances in the past few days that cotton textile ceilings will not be rolled back to current sub-normal market levels should have a marked effect in improving the present situation, he added. Among a list of recommendations which he advanced for more effective industry-military co-operation in the defense effort, Mr. Love suggested that whenever possible, the Quartermaster Corps buy goods when prices are low and, when time permits, should spread purchases over the entire fiscal year.

"Following these practices would be a great economy for the government," he pointed out, "and on the part of the industry this would make possible more orderly manufacturing schedules. In making this recommendation, I do not for a moment mean to infer that Q.M. purchases should arbitrarily be used to bolster declining markets," he added. "To do so would be nothing more than to provide a subterfuge subsidy, and the textile industry is not seeking that."

Industry executives in attendance at the association convention expressed pleasure at the announcement that a committee had been appointed to draw up a code of ethics for the association to govern dealings between businessmen generally and those with government, particularly with the military procurement services.

Roy A. Cheney, president of the Underwear Institute, was named chairman of the new ethics committee which also includes the following: Col. Paul A. Logan, retired, Chicago, immediate past president of the Q.M.A., Charles McCormick of McCormick & Co., Baltimore, newly-elected president of the Q.M.A.; Harry Riemer, editor, *Daily News Record,* New York; Charles A. Cannon, president, Cannon Mills, and past president of the Q.M.A.; David Levine, president, Hyde Park Clothes, Newport, Ky., and a national vice-president of the Q.M.A.; P. M. French, head of Southern Mfg. Co., Nashville, and past president of Southern Garment Manufacturers Association, and Donald O'Hara, general counsel for the Q.M.A.

Addressing the textile session, James Truslow of Saco-Lowell Shops, Boston, charged that the National Production Authority is deliberately trying to force textile machinery manufacturers into the machine tool business, posing a serious threat to national security should an all-out emergency arise within the next few years.

"We textile machinery builders can contribute only a drop in the bucket to the machine tool industry. Moreover, once we are converted, our effectiveness in supplying textile machinery, in the event of an emergency, would be lessened greatly.

"Right now, there is plenty of nearly everything the government wants, particularly in the staple styles. However, machinery wears out and becomes obsolete. Emergencies can arise, and some mills might need more cards, or more combers, or more twisters, without which they would be out of balance. If the position of the machinery people is

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not recognized by N.P.A. that equipment would not be available later, no matter how great the need," he said.

Col. I. J. Dykeman, chief, clothing and equipage branch, supply division, Office of Quartermaster General, said that military buying during the 1952 fiscal year will be "maintained almost at the same level as last year." Colonel Dykeman, addressing the clothing industrial group of the Quartermaster Association, said that military appropriations for clothing and equipage during fiscal 1952 will total approximately $1,400,000,000. Last year, he pointed out, it totaled slightly higher, $1,600,000,000, but, he added, the fiscal 1952 buying program has not been entirely developed yet.

Referring to the ten million-pound military wool reserve program, Colonel Dykeman said, to date, contracts have been placed to over 75 per cent of the program and that the remaining 25 per cent is expected to be awarded during this fiscal year.

"This program will provide a cushion in event of a sudden increase in military demands for wool, he said. "It is believed the program will materially assist both the manufacturing industry and the Quartermaster Corps in meeting requirements for our troops on a timely basis in event of mobilization in that textiles will be immediately available to commence fabrication of end items."

Discussions at the textile session regarding synthetics brought the comment that the Q.M. found the materials it was using satisfactory for the purposes intended; while there was no immediate plans for any changes, synthetics likely will continue to get attention.

Several textile executives declared that they can't get assistance from the military to construct buildings or buy additional equipment for defense goods. They were told that the Q.M. will do what it can, but that the ultimate decision does not rest with Q.M. It is willing to certify the goods as needed or scarce, if the productivity is not there, a Q. M. spokesman said.

Delegates Report On Standards Conference

First hand reports on the recent international textile standards conference were made to members of the American textile industry Oct. 16 at the Park-Sheraton Hotel, New York City, during a meeting jointly sponsored by the American Society for Testing Materials, the American Association of Textile Chemists and Colorists, and the American Standards Association.

The reports were presented by nine of the 14 members of

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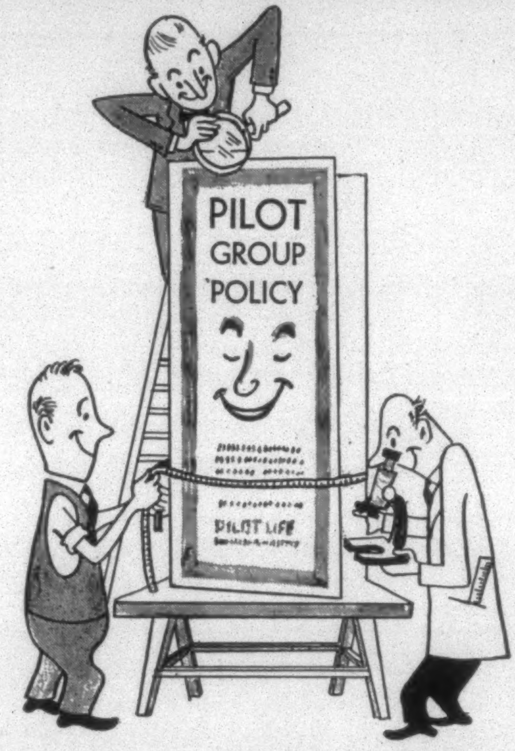

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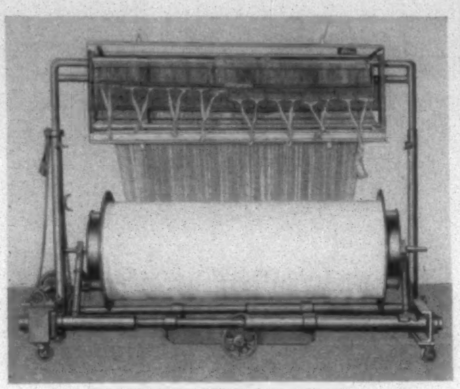

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the American delegation who attended meetings of the International Organization for Standardization's Committee 38 on Textiles in Bournemouth, England, June 4-9, 1951. The American Standards Association, as the U. S. member of the International Organization for Standardization, organized the delegation to attend the meetings.

Difficulties encountered in international trade because of the lack of a universal yarn numbering system, and the progress being made toward the establishment of such a system was discussed by Dr. A. G. Scroggie, manager, characterization laboratory, rayon development section, E. I. du Pont de Nemours and Co., Wilmington, Del. Use of the "grex" system for numbering all yarns—filament as well as cotton and wool, etc.—has been proposed by Dr. Scroggie. This system is similar to the "denier" system now used for the numbering of filament yarns. This proposal will provide one method for all fibers—natural as well as synthetic.

The significance of the entire program of international standardization to American textile manufacturers was discussed by M. Earl Heard, vice-president in charge of research, West Point Mfg. Co., Shawmut, Ala. Because of the increased attention and sympathetic consideration being given to this international program, the discussion was of extreme interest to all members of the industry.

The over-all aspects of the committee's work was discussed by William D. Appel, chief of the textile section, National Bureau of Standards, and chairman of the American delegation.

Prior to the start of the program on the international textile meetings, Committee D-13 on Textiles of the American Society for Testing Materials honored Prof. Edward M. Schwarz, head of the textile division, Massachusetts Institute of Technology, by presenting him with the Harold DeWitt Smith Memorial Medal.

Professor Schwarz is the second recipient of the medal, which was endowed by the Fabric Research Laboratories, Inc., Boston, as a testimonial to the memory of the late Harold DeWitt Smith, a well-known textile scientist. The first award was made in 1950 to Dr. Herbert F. Schiefer, then a physicist at the National Bureau of Standards, Washington, D. C.

The medal is awarded at intervals of not less than one year for outstanding achievement in the field of textile fiber science and utilization, which includes the development and promotion of fundamental knowledge of textile fibers and structures and methods for the evaluation of their properties.

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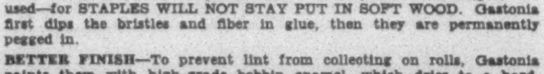

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Modern Textile Plant In Jamaica

Although Jamaica is known as one of the premier year-round tourist resorts, it may be news to many that the island is proceeding with an extensive program of industrial development in areas remote from tourist regions. It is already operating a cotton mill, said to be the most modern in the world because it contains features that have only recently been released for the use of textile manufacturers.

The building of the Ariguanabo Co. of Jamaica, Ltd., stands on 4½ acres of ground and is completely air conditioned. The operations include the full processes of spinning, weaving, bleaching, dyeing and finishing.

One of the remarkable features of the building is that it is constructed with reinforced foundation columns, beams, and the roof slab, with fillings of bricks which were made on the mill site in individual moulds. Two million of these bricks were used. Their porosity has proven excellent and at the same time has assisted in creating the correct conditions for the air conditioning.

The machinery is all entirely new, the spinning equipment having come from the Whitin Machine Works, comprising 12,000 spindles, and the looms from the Draper Corp., numbering 336 Model X2. The bleaching, dyeing and finishing machinery are primarily from H. W. Butterworth & Sons Co. All of the motors, wires, steel, cement, conduits, etc., came from British sterling sources.

The mill is geared to produce, at 100 per cent efficiency, working 300 days per year, three 8-hour shifts daily, a total of 14 million yards. The company has a fully paid-up capital of $2,520,000.

Textile Education Group Re-elects Brumby

Lawrence R. Brumby, vice-president of Bibb Mfg. Co., Macon, Ga., was re-elected president of the Textile Education Foundation, Inc., at the tenth annual meeting of the group last month at the A. French Textile School, Georgia Institute of Technology, Atlanta. Other officers re-elected were M. M. Bryan, Jr., president of Jefferson (Ga.) Mills, vice-president; George H. Hightower of Thomaston (Ga.) Mills, treasurer; and T. M. Forbes, executive vice-president of the Cotton Manufacturers Association of Georgia, secretary.

Norman Elsas, chairman of Fulton Bag & Cotton Mills, Atlanta, reported for the nominating committee when five directors, whose terms expire in 1952, were proposed for

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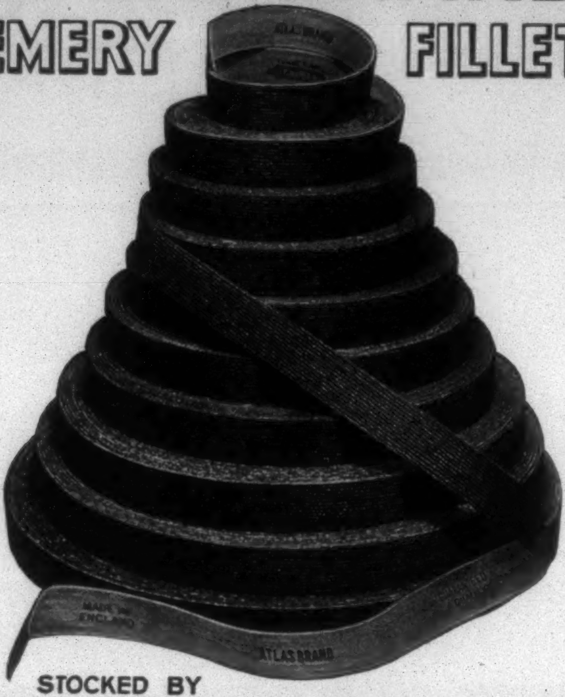

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re-election. They are: N. B. Murphy of the Trion (Ga.) Division of Riegel Textile Corp.; J. M. Cheatham, president of Dundee Mills, Griffin, Ga.; George Hightower, vice-president of Thomaston (Ga.) Mills; Frank Dennis, general superintendent of Graniteville (S. C.) Co.; and B. W. Whorton, vice-president of Dixie Mills, LaGrange, Ga.

Mr. Elsas, chairman of the foundation's executive and scholarship committees, said the scholarship committee had approved the establishment of three $1,000 four-year scholarships to the A. French Textile School. The purpose, he said, is to help provide a textile education for worthy Georgia students and to emphasize the opportunities offered in the textile field in the state for trained men.

A constructive analysis and criticism of the curriculum at the A. French Textile School was presented by Mr. Morris. The A. French Textile School has a "fine curriculum," Mr. Bryan reported, with options in (1) textile engineering (2) textile manufacture and textile chemistry and dyeing. "This is much more of a college education curriculum than a trade school education," he declared. Mr. Bryan suggested that the following courses be added: humidification and air conditioning, woolen and worsted manufacture, more instruction in spinning, material handling; public speaking, and costs and values of waste.

Mr. Whorton reported that not a single textbook on industrial relations available for use at Georgia Tech and other institutions had been found which presented the "unbiased facts" about industrial relations. To remove this situation, he said the foundation had agreed to pay the cost of preparing and publishing an unbiased and factual textbook on the subject. That project is now being undertaken by Prof. H. E. Dennison, director, and Prof. W. G. Gilman, faculty member, of the department of industrial management, Georgia Tech.

At this meeting, the fiscal year was changed to begin in October, the foundation formerly having met in conjunction with the annual convention of the Cotton Manufacturers Association of Georgia. The separate meetings will give the foundation additional time for its sessions and added significance, President Brumby pointed out.

Georgia Operating Executives Hold Parley

Approximately 300 superintendents and operating executives representing textile plants in several states were in attendance at the Fall meeting of the Textile Operating Executives of Georgia held last month at the A. French Textile School of the Georgia Institute of Technology, At-

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lanta. H. M. Jackson of Fulton Bag & Cotton Mills, Atlanta, general chairman of the group, presided at the meeting.

A feature of the parley was discussion periods given over to consideration of problems in slashing and weaving. Albert Johnson, assistant superintendent of the Lannett (Ala.) Division of West Point Mfg. Co., led the discussion on slashing. T. M. Hampton, superintendent of the Hillside Plant of Callaway Mills Co. at LaGrange, Ga., led the discussion on weaving. These discussions represented the experience of 22 Georgia mills and mill groups operating 1,393,782 spindles.

At the session on slashing it was revealed that installation of multi-motor d.c. slasher drives has resulted in increased efficiency and production with up to 20 per cent more yarn on the loom beam. Most agreed that the electronic type moisture indicator control system of the constant speed type for slashers resulted in increased production and closer moisture content control.

The weaving discussion indicated that much study has been given to humidity control, seeking a more uniform condition. A number of types were discussed, but considerable difference of opinion existed as to the most efficient type for the weave room. A number of mill men, however, reported most satisfactory results from air cloth guides.

The textile industry of England is highly specialized, but English millmen have not yet grasped our ideas of mass-production, R. H. Jewell, vice-president of Crystal Springs Bleachery, Chickamauga, Ga., told the group. Mill equipment is far from modern but is kept in good operating condition.

While the work loads are pretty much the same as in America, English mills are completely unionized and the union refuses to permit any load increases. An English spinner tends 1,000 spindles and a weaver not more than eight looms, Mr. Jewel said, in relating impressions received while on a recent trip to Britain. He was introduced by T. M. Forbes, executive vice-president of the Cotton Manufacturers Association of Georgia.

Synthetics Seen Set For Big Expansion

Two sources within recent weeks have predicted a remarkable growth in the production of synthetic fibers during the next few years. The Department of Agriculture Oct. 30 predicted that the present tight world supply situation for wool will encourage further expansion next year in the production of synthetic fibers. The department said expan-

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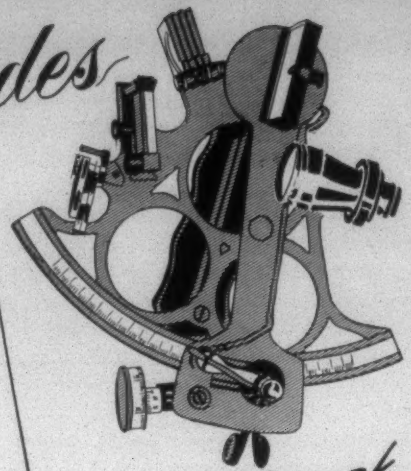

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sion plans of the rayon industry in this country call for an increase of about 25 per cent in output by the end of 1953. Expansion of the newer synthetic fibers is also planned by industry, the department reported.

It was pointed out that production of wool in this country next year is expected to be somewhat larger than this year but that this country will continue to depend upon imports for a large share of its needs.

The synthetic fiber industry is expected to increase its annual production some 600,000,000 pounds in the next ten years and most of this activity will be concentrated in the Southern states, according to a report of the Southern Association of Science and Industry. Dr. Frank J. Soday, director of research for the Chemstrand Corp., in a survey conducted for the association, declared that the South's role in synthetic fiber production "will be as striking as the region's recent progress in cotton textile activity and promises to become one of the nation's most important industrial assets."

In 1950, approximately 145,000,000 pounds of synthetic fibers were produced in this country, and production is expected to increase to 400,000,000 in 1953, to 500,000,000 in 1958 and to 750,000,000 in 1960, Dr. Soday reported.

Report Results Of Wool Research Project

Exhaustive research studies to determine the most favorable conditions for aging and steaming wool fibers may make it possible in the future to spin finer yarns from medium and coarse wools, to the extent that the fineness of the yarn controls the handle of the fabric. This fact is indicated in findings of the International Wool Research Project, made public for the first time Nov. 8 at the annual meeting of the Textile Research Institute in the Hotel Statler, New York City.

In issuing the first public report on the project, Werner von Bergen, director of research for Forstmann Woolen Co., and Dr. James H. Wakelin, director of research for the Textile Research Institute in Princeton, N. J., stressed that aging and steaming—used together or indiviually—make it possible for wools to be spun close to the spinning limit with higher efficiency. In some cases, it was reported, use of aging and steaming enables the present spinning limit to actually be exceeded. If improved techniques for aging and steaming are developed, the technicians pointed out, it may be possible to use coarse wools in making yarns of qualities now made with finer wools.

Four wools, representing two fine wool types and two medium crossbreds, have been subjected to extensive laboratory examination in the raw state, and as withdrawn from various stages of worsted manufacture. The processing of these wools took place in the Passaic, N. J., plant of Forstmann Woolen Co. All operations were under careful control of technicians from the plant laboratory and from the Textile Research Institute.

The two fine wools used in the wide range of physical and chemical tests were one lot from Australia (70s) and a domestic lot (64s). Medium wools (58s) were from the United States and New Zealand. Each lot, weighing over 3,000 pounds in the grease, was processed on the French system into finished fabric.

Called a report on "Properties of Apparel Wools Affected by the Process of Worsted Manufacture," the Nov. 8 announcement by the directors listed the outstanding conclusions drawn from the work thus far.

National Cotton Council To Meet Jan. 28-29

The National Cotton Council Nov. 8 announced it would hold its 14th annual meeting in the Roosevelt Hotel, New Orleans, La., Jan. 28-29, 1952. Objective of the meeting is to study and approve an industrywide promotion and research program for 1952 in behalf of cotton, cottonseed, and their products. Delegate members also will hear staff reports of activities during the past year.

Eighteen cotton producing states from Carolina to California, and the six segments of the raw cotton industry—producers, ginners, cottonseed crushers, merchants, ware-

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housemen, and spinners—will be represented. A full slate of committee sessions is scheduled for the three days prior to the general assembly on Monday, Jan. 28. Meetings of the long staple and cotton quality committees and of the mobilization subcommittee are listed on the program for Friday, Jan. 25. On the following day, other committees will hear reports of Cotton Council staff members on 1951 activities and will study recommendations for 1952. The full cotton mobilization committee will meet Saturday afternoon, Jan. 26. Operating policy, budget, and finance committee sessions are scheduled Sunday, Jan. 27.

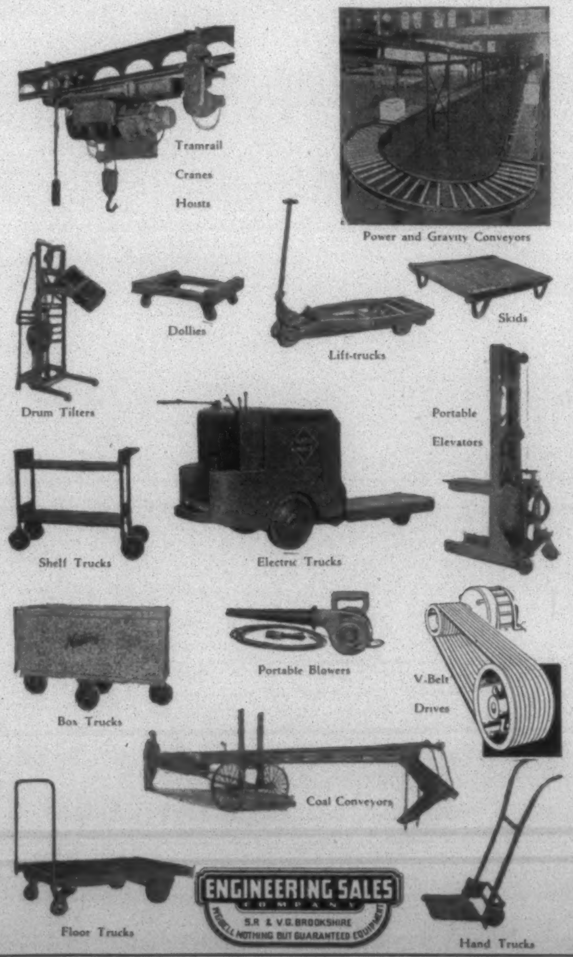
Sirrine Building Dedicated At Clemson

Clemson (S. C.) College Nov. 3 dedicated its J. E. Sirrine Textile School Building at impressive ceremonies attended by dignitaries from the fields of industry, engineering, agriculture and government. Although the building was completed in 1939, its 2½ acres of floor space has only recently been completely filled with the lastest in textile machinery and laboratory equipment through the combined efforts of the state government and the textile industry at a cost in excess of $400,000.

A feature of "Textile Day at Clemson" was an address by Gov. James F. Byrnes of South Carolina on "The Role of Industry in South Carolina's Progress." Mr. Byrnes took a slap at the Textile Workers Union of America for the group's effort to persuade the government to refuse permits to Textron, Inc., to build two new plants in South Carolina. He expressed the opinion that the union would not succeed in stopping construction of these plants since government officials cannot decline to allocate critical materials to plants that will produce commodities needed for the defense program.

The former Secretary of State expressed the opinion that textile plants are moving South because they can be operated here "more efficiently and more economically." Wage scales in South Carolina and New England, he said, are substantially the same, but employers know South Carolina workers are interested in "how much work they can do instead of how little." "Whatever may motivate them, new manufactures are welcome in South Carolina," he said. "They can be assured that as long as I am governor, I will do everything in my power to see that they receive fair treatment at the hands of our State government."

Governor Byrnes was awarded the honorary Doctor of Textile Industries degree as were William H. Beattie, president of Woodside Mills, Greenville, S. C.; Harold Blancke, president of the Celanese Corp. of America, New York, N. Y.; Henry M. Bliss, president and treasurer of Pacific Mills, Boston, Mass.; Robert H. Chapman, chairman of the board of trustees of the J. E. Sirrine Textile Foundation and vice-president and assistant treasurer of Inman Mills and Riverdale Mills, Inman, S. C.; Charles E. Daniel, president and treasurer of Daniel Construction Co., Greenville, S. C., and chairman of the executive committee of the Clemson board of trustees; Benjamin B. Gossett, former president and board chairman of several leading textile concerns,



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Charlotte, N. C., (who died ten days later, Nov. 13, of a heart attack); Francis E. Grier, president and treasurer of Abney Mills, Greenwood, S. C.; Lawrence O. Hammett, president and treasurer of Chiquola Mfg. Co., Honea Path, S. C.; Robert E. Henry, former president of Dunean and Victor Monaghan Mills, Greenville, S. C.; Henry P. Kendall, chairman of the board of the Kendall Co., Boston, Mass.; Leon Lowenstein, chairman of the board of M. Lowenstein & Sons, Inc., New York, N. J.; Ellison S. McKissick, president and treasurer of Alice Mills, Easley, S. C.; Ralph T. Marshall, president of Utica and Mohawk Mills, Inc., and Utica Willowvale Bleaching Co., Utica, N. Y.; Roger Milliken, president of Deering, Milliken & Co., New York, N. Y., and chairman of the board of the Institute of Textile Technology, Charlottesville, Va.; Walter S. Montgomery, president and treasurer of Spartan Mills, Spartanburg, S. C.; James C. Self, president of Greenwood (S. C.) Mills; Robert T. Stevens, chairman of the board of J. P. Stevens & Co., Inc., and chairman of the Federal Reserve Bank, New York, N. Y.; Samuel H. Swint, president of the Graniteville (S. C.) Co.; Frederick W. Symmes, president of the Nuckasee Mfg. Co. and Piedmont Plush Co. and vice-president of the Camperdown Co., Greenville, S. C.; and George M. Wright, president of the J. E. Sirrine Textile Foundation, Abbeville, S. C., and retired president of Republic Cotton Mills, Great Falls, S. C.

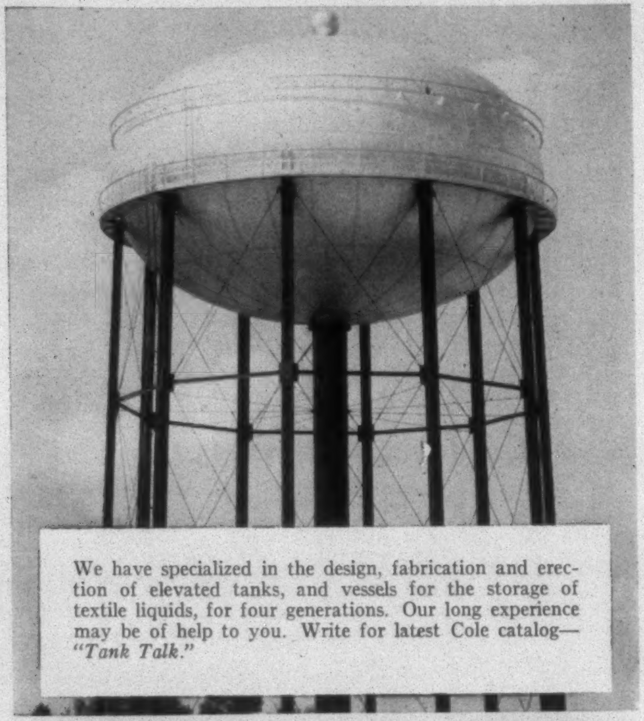
The J. E. Sirrine Textile Foundation held its annual meeting Nov. 2-3 on the Clemson campus. This organization has been one of the main factors in building the Clemson School of Textiles up to its unsurpassed position in the field of textile education today. Through it the textile industry of South Carolina has contributed almost $1,000,000 for the improvement of textile education in the state. George M. Wright of Abbeville, S. C., is president of the foundation and Robert H. Chapman of Inman, S. C., is chairman of its board of trustees. All of the trustees are prominent South Carolina textile executives.

An oil portrait of the late Mr. Sirrine was unveiled by T. Frank Watkins, Anderson attorney and counsel for the South Carolina Textile Manufacturers Association. After serving as Southern manager for Lockwood-Greene Engineers, Mr. Sirrine founded his own firm in 1902, and at his death in 1947 was a director of 28 textile manufacturing corporations. The painting will be placed in the textile building.

Find Source Of 'Tar Spots' In Cloth

Tiny resin sacs of vegetable origin are a newly-discovered source of "tar spots" in cloth which annually cost textile plants hundreds of thousands of dollars to remove, according to an announcement by the Institute of Textile Technology, Charlottesville, Va.

For years scientists in mill laboratories, colleges and research centers have been pushing a wide-spread detective job to solve the mystery of where "tar spots" come from, believing all resulted from flecks of tar or asphalt picked up by cotton during its journey from fields to mills. Although the spots cause only small blemishes in fabric, they have become more noticeable with recent improvements in cloth quality, so that many textile companies have been



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forced to classify thousands of yards of goods as "seconds" or are spending large amounts for special cleaning treatments.

Dr. Jack Compton, technical director of the Institute of Textile Technology, reports that while a large number of the spots which plague manufacturers and customers alike are caused by asphaltic materials, a discovery by Leo Hubbard, I.T.T. research chemist, proves beyond doubt that many come from resin sacs normally present in leaves or burrs which become mixed with cotton fiber during harvesting.

These tiny egg-like capsules, about one-fifth of an inch in size, can often be spun right into a piece of yarn and woven into the cloth. When heated, they burst and a black substance resembling tar flows out to cause a smudge. Ordinary bleaching operations cannot remove the stain, distinguishable because unlike asphalt tar spots this resinous substance will not dissolve in petroleum solvents.

Mr. Hubbard's discovery marks the first time in the history of cotton culture and manufacturing that science has traced "tar spot" trouble to vegetable resin sacs, Dr. Compton states, and opens a new way toward eliminating the problem.

Purchase Blankets From Federal Prisons

The Armed Forces are directed under Armed Services Procurement Regulations to buy products manufactured by federal prisons in amounts available. These regulations are under the mandatory direction contained in Title 18, U. S. Code, Chapter 307, Sections 4121 to 4128. The Quartermaster Corps is in the process of procuring 1,250,000 wool blankets for delivery during 1952. Of this amount 1,000,000 will be bought from private industry on bids opened at the New York Quartermaster Procurement Agency, 111 East 16th Street, New York 3, N. Y., on Oct. 30. The balance of 250,000 blankets will be bought from Federal Prison Industries, Inc., who will place them with the prison shops producing them. The price to be paid Prison Industries is based upon the mean average cost to be paid to private industry for the identical item.

T.R.I. Operating Budget Tops $350,000

Textile Research Institute's operating budget will be in excess of $350,000 for the fiscal year 1951-52, Dr. J. H. Dillon, director of the institute, announced recently. This compares with expenditures of approximately $305,000 by

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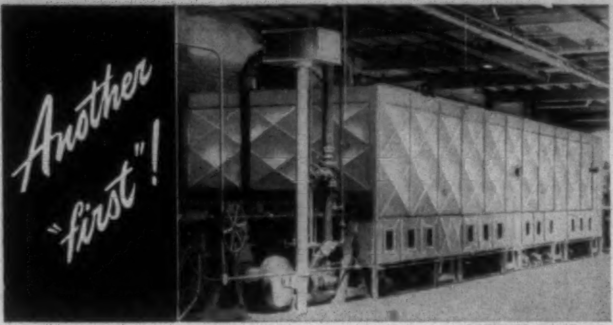

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all departments of the institute during its fiscal year which ended on Sept. 1. Reviews of other fiscal reports reveal that the 1952 budget will be 13 times as large as the budget of ten years ago, 1942. It exceeds the 1944 budget by four times. This was thought to be a most significant figure inasmuch as 1944 was the first year that the institute operated its own laboratories in Princeton, N. J.

Dr. Dillon pointed out that although these figures indicate remarkable growth on the part of the institute, he felt that a parallel growth had been experienced in research expenditures in the textile industry generally. A complete breakdown of the past year's research expenditures of the institute as well as a detailed budget for the coming year was contained in the annual report of the institute, which was released during the 22nd annual meeting held at the Hotel Statler in New York on Nov. 8-9.

Program For A.S.M.E. Textile Division Parley

A symposium on opening and picking will feature the textile division program Nov. 30 at the annual meeting of the American Association of Mechanical Engineers in Chalfonte-Haddon Hall, Atlantic City, N. J. The program will be divided into morning and afternoon sessions.

The morning program will include papers on "The Aldrich System" by A. P. Aldrich, president of Aldrich Machine Works, Greenwood, S. C.; and "The Saco-Lowell System" by Robert S. Curley, research engineer of Saco-Lowell Shops, Biddeford, Me. Lindsay Dexter, assistant treasurer of Pepperell Mfg. Co., Boston, Mass., will act as chairman at the morning session and H. W. Ball, chief engineer of Foster Machine Works, Westfield, Mass., will serve as vice-chairman.

At the afternoon session Paul G. Grant, Jr., of Whitin Machine Works, Whitinsville, Mass., will discuss "The Whitin System," and J. J. McElroy, general manager of Maverick Mills, East Boston, Mass., will act as moderator at a round table discussion. The chairman for this session will be R. O. Palmer of Carlyle Johnson Machine Co., Shrewsbury, Mass., and the vice-chairman will be Charles C. Bell, director of research for Universal Winding Co., Providence, R. I.

Principal speaker for the division's luncheon meeting will be Joseph M. Leahy, director of research, Volkart Bros., Inc., New York City, whose topic will be "The 1951 Cotton Crop."

Predict Rapid Growth For Acrylic Fibers

Production and acceptance of acrylic fibers will grow so rapidly that by 1960 they will rank second next to cellulose fibers in the synthetic field, C. W. Bendigo of American Cyanamid Co. predicted during a textile panel at the 60th anniversary convocation of Drexel Institute of Technology at the Bellevue Stratford Hotel, Philadelphia, Pa.

He said he felt the prices of acrylic would in the near future drop down to within sight of rayon, but would not drop as low. He also estimated that Orlon and dynel staple production should hit about 30 million pounds in 1953. Acrilan production, he said, would reach the same figure by the end of next year compared with one million now. Orlon filament will probably go up from six to eight million pounds in 1952.

Another speaker was J. S. Rumsey, manager of the Du

Pont nylon sales division, who traced the histories of nylon and Dacron. Victor W. Boeker, assistant to the general manager of the textile division of Owens Corning Fiberglas Corp., also spoke. Dr. Frederic Bonnet of American Viscose Corp. was chairman of the panel.

N. C. Textile School Plans Conclave

The second annual conclave of the School of Textiles of North Carolina State College will be held Friday and Saturday, Dec. 7-8. All alumni and former members of the student body of the school of textiles have been invited to attend the event.

Cite Fire Menace in Wool, Synthetic Blends

Fire hazards and dangers to human life in textile mills are being increased greatly through the blending of rayon, nylon and other synthetic fibers with wool, according to the Factory Mutual engineering division in Boston, Mass. Fire insurance laboratories are eagerly seeking suggestions for diminishing the dangers, the division reports in a letter to the Wool Bureau. The letter was written by R. G. Shepherd, engineer for the division's standards department, at the request of A. L. Brown, director of the division.

The communication is the basis of the leading article in the current "Newsletter for Wool Textile Executives," of Oct. 15 issued by the technical department of the bureau for distribution to textile mills. Suggestions for diminishing the dangers inherent in wool and synthetic fibers are requested, with the added comment that when received they will be disseminated to all interested parties, including fire insurance laboratories.

"The trend toward blending of wool with viscose or saponified rayon," the Factory Mutual engineering division says in part, "has introduced numerous problems from a hazard point of view. Even a small percentage of rayon (15 to 20 per cent) when mixed with wool places the hazard in the cotton class. We would welcome any suggestions or information on practical methods of blending which do not require storage bins.

"While our experience with acyrylic fiber is somewhat limited, we would expect it to have burning properties slightly slower than that of viscose rayon. Only small laboratory tests have been made so far with no actual field experience. It may be of interest to note," the communication continues, "that fibers such as acetate or nylon staple when blended with wool also seem to indicate a more flammable mixture than for straight wool fiber. It appears that the fusion of the synthetics carries the combustion immediately to the bottom of the pile—which, with the surrounding insulation, creates a stubborn fire extremely difficult to extinguish. Salvage of blended fiber is also a greater problem than for straight fiber. Blends of cotton or viscose with wool produce a surface flash before burrowing takes place.

"One important condition which definitely should be impressed upon mill management is the life hazard," the Factory Mutual engineering division declares in a second communication. "There have been several instances where lives have been lost in blending bin fires due to the rayon content of the mixtures."

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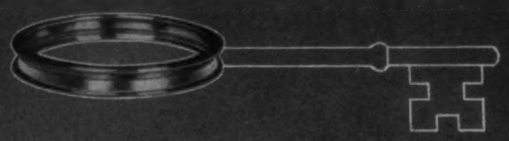

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Rayon Shipments For October Listed

Rayon shipments by United States producers in October totaled 82,200,000 pounds, according to the *Rayon Organon,* statistical bulletin of the Textile Economics Bureau, Inc. Of this total, 81,600,000 pounds were delivered to domestic consumers and 600,000 pounds were exported. Shipments in October were one-half of one per cent below those in September, but 26 per cent under the second quarter 1951 monthly average of 110,800,000 pounds.

An analysis of shipments in recent months by the *Organon* reveals that production of viscose high tenacity yarn in October was maintained at the record high level of 30,300,000 pounds and shipments were about equal to output with the result that there has been little increase in producers' stocks. Similarly viscose+cupra staple+tow production at 18,700,000 pounds in October was close to shipments for that month and stocks were not increased. Acetate staple output was reduced in October to 8,100,000 pounds and, with shipments running approximately 200,000 pounds higher, further stock accumulation was stopped.

In the regular+intermediate tenacity viscose+cupra and the acetate yarns, however, October shipments totaled 26,600,000 pounds, a reduction of 53 per cent compared to the second quarter monthly average, and production amounted to 45,500,000 pounds, a decline of 21 per cent from the second quarter monthly average. Although both output and shipments were down for the month, stocks of the acetate and viscose textile yarns rose to 71,300,000 pounds.

The *Organon* points out that the data on rayon producers' shipments indicate a low rate of demand in most segments of the textile consuming trades. The same slow demand situation, of course, holds true in cotton and especially in wool where a large percentage of the already-small consumption is for military purposes. The *Organon* directs attention also to the fact that rayon producers' shipments of rayon to domestic consumers are "one step ahead" of cotton consumption and wool consumption, in that rayon consumption by weavers and knitters is greater than the shipments would indicate. It is certain, according to the *Organon,* that the rayon fabricators have reduced their inventory of yarn and staple over the last several months.

Current decline in textile fiber consumption at the mill level, the *Organon* states, reflects a continuation of the two-year textile cycle which last pointed downward in 1949 and, prior to that time, was regularly present in the 1930s. There was little evidence of this cycle during the war and postwar years between 1941 and 1948.

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The *Organon* asks: What causes these cycles which seem to occur around the general business cycle but not because of it? A logical explanation, it is pointed out, is the shift in inventories between the various segments of the production-distribution chain. One factor that had a bearing on the depth of the present cycle, of course, was the buying spree of the ultimate consumers in the Fall of 1950 together with what is now recognized as the overestimated significance of military buying of textiles. Another factor was buyer and seller confusion over the price controls that were being formulated by the Office of Price Stabilization.

Analysis of rayon inventories at all stages of production and distribution from producers' level through the retail counter indicates a "normal" supply of around nine months. Thus a "normal" producers' inventory may consist of a four weeks' supply; mills may have on hand a five weeks' supply of fiber and yarn plus an additional two to four weeks' supply in the process of spinning or weaving, plus another few weeks' supply as gray goods; added are the additional weeks' supply normally held by converters, cutters, wholesalers, and retailers and including goods in transit. On the basis of retail stock turn figures, the "normal" inventory of textile items in a retail store alone approximates over a three months' supply.

Analyzing the stock situation of last Spring, the *Organon*, using hypothetical figures, illustrates that the total inventory supply in all hands does not vary greatly. Supposing that retailers' inventories in the Spring were a 15 weeks' supply or two weeks over "normal"; that the inventory of weavers, converters, cutters and other distributors totaled a 24 weeks' supply or two weeks over "normal"; and that producers' inventories of rayon were a nominal one-half week's supply and therefore four weeks under "normal." After distribution was slowed-down last Spring, all manufacturers and distributors from the rayon weaver forward possibly came to feel that they were over-inventoried and gradually reduced purchases in an attempt to lower their stocks. The result was a slowing down of rayon distribution at all stages and, in essence, the excess inventories formerly held by weavers and subsequent distributors backed up into the producers' hands.

Hypothetically the situation today might be a near-normal inventory in the weaver-to-retailer pipe lines, which actually represents a five weeks' supply decline from last Spring. From the producers' angle this backed-up inventory situation was handled by their increasing their stocks by a net four weeks' supply and reducing production to accommodate

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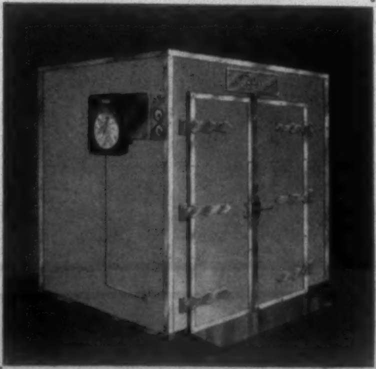
the other one week's supply. The completion of the cycle, the *Organon* states, reverses this procedure, of course. Inventories at various stages beyond the producer get to a point below "normal" and create a resurgence of buying from the producer. The inventory level then flows forward into the production-distribution chain and the cycle repeats.

The *Organon* notes that this analysis is predicated on an essentially constant total inventory of approximately nine months' supply in the production-distribution chain. It is believed that this total at any one time probably does not vary more than a couple of weeks' supply. It is also predicated on the basis that, with seasonal factors considered, the final consumers' purchases of textiles in terms of poundage are much more regular over a period of time than might be supposed.

Rayon staple imports during September amounted to 7,586,000 pounds, a figure slightly under the 7,981,000 pounds imported in August. Total staple imports for the first nine months of the year were 73,325,000 pounds compared with 57,245,000 pounds in the corresponding period of 1950. In the matter of countries supplying the staple, there was a large cut in shipments from Germany during August and increases by France and Italy.

For the first nine months of 1951, 30 per cent of the total imports of rayon staple were from Germany. Other supplying countries and their percentages of the total were: Italy 11 per cent, France ten per cent, Austria and Norway eight per cent each, Switzerland seven per cent, Belgium, Sweden and the United Kingdom six per cent each, Cuba and the Netherlands three per cent each, and all other countries two per cent. Imports of rayon filament yarn during September were nominal at 28,000 pounds. The first nine months' total of filament amounted to 5,041,000 pounds compared with 2,374,000 pounds in the same period of 1950.

In relation to the raw material allocations of sulfuric acid and carbon bisulfide, the *Organon* points out that under the proposed National Production Authority cutbacks, some interesting angles arise. With production of regular+intermediate viscose+cupra yarn at about 93 per cent of capacity in October, the proposed cut of these two chemicals to 90 per cent of the 1950 base period would have little present effect. But the real hardship could occur in the output of viscose high tenacity yarn, where the 1950 production averaged about 25,800,000 pounds a month and the October production is figured at 30,300,000



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pounds or 17 per cent greater. It is probable, however, that since the high tenacity yarn is a defense type material, the N.P.A. would authorize unlimited use of sulfuric acid and carbon bisulfide for this product.

For viscose+cupra rayon staple, the case is not as clear, according to the *Organon.* October 1951 production of this product was 18,700,000 pounds compared with the 1950 monthly average of 16,000,000 pounds. It is not known, the *Organon* points out, whether sulfuric acid and carbon bisulfide now used in the production of viscose+cupra regular+intermediate yarn could be turned over to the production of rayon staple.

Third quarter rayon production in the United States, as compiled by the *Organon,* shows that 336,700,000 pounds were produced as against a record high of 336,900,000 pounds in the second quarter. Third quarter output was three per cent above the first quarter and six per cent over the third quarter of 1950. For the first nine months of the year, a total of 999,800,000 pounds was produced, a gain of 7½ per cent over the 929,800,000 pounds produced in the corresponding period of 1950.

Third quarter rayon yarn shipments amounted to 209,000,000 pounds, a sharp drop of 16 per cent from the second quarter and the lowest quarterly total since the third quarter of 1949. Difference between production and shipments of yarn in the third quarter or 41,600,000 pounds went into producers' inventories.

Exports of rayon filament yarn amounting to 3,100,000 pounds in the third quarter declined 30 per cent from the second quarter level but the nine months' exports amounting to 11,100,000 pounds were 13 per cent over those in the 1950 corresponding period.

Producers' shipments to domestic consumers showed a notable increase in shipments of high tenacity viscose rayon yarn to manufacturers of tires and related uses. A total of 83,000,000 pounds of this yarn was shipped, or four per cent more than the previous record in the fourth quarter of 1950.

Shipments of rayon filament yarn to all other or textile trades totaled 122,900,000 pounds, a decline of 27½ per cent from the 169,200,000 pounds shipped in the second quarter. The third quarter shipments were the lowest since the second quarter of 1949. By trades, the third quarter shipments showed the following percentage changes compared to the second quarter: hosiery, minus 9; circular knit goods, minus 11; warp knit goods, minus 24; broad woven goods, minus 31; narrow woven goods, minus 14; and miscellaneous uses, plus 2½.

Average denier of viscose high tenactiy yarn shipments

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for tires and related uses in the third quarter of 1,573 denier compares with 1,571 in the second quarter and 1,568 in the first quarter of 1951. By principal denier groups, the percentages of shipments for tires and related uses during the first, second, and third quarters respectively were as follows: 1,100 denier 14½ per cent, 14 per cent and 14 per cent; 1,650 denier 80½ per cent, 81 per cent, and 78 per cent; and 2,200 denier five per cent, five per cent, and eight per cent.

For the viscose+cupra textile rayon yarn shipments in the third quarter, the average denier was 155 against 141 in the second quarter and 134 in the first quarter. This rapid increase in average denier was caused by the greater relative decline in shipments of yarn of 100 denier and finer. Acetate yarn shipments averaged 107 denier in the third quarter which compares with 103 in the second quarter and 102 denier in the first quarter.

U. S., World Cotton Crop Estimate Drops

The Agricultlture Department recently estimated this year's cotton crop at 15,771,000 bales of 500 pounds gross weight. This figure is 1,160,000 bales less than the 16,931,000 forecast a month ago. It compares also with last year's very small crop of 10,012,000 and with the ten-year (1940-49) average of 12,030,000. This year's crop is supplemented by a carryover of about 2,200,000 bales from past crops. This carryover is one of the smallest of record.

The International Cotton Advisory Committee Nov. 12 revised its estimate of world cotton production downward from an earlier prediction of 36 million bales to 33 or 33.5 million. If the consumption of cotton this season is maintained at the same high rate of 33 million bales last year, obviously nearly all of the cotton produced will be used, the committee pointed out. There will be no sizeable increase in stocks this season. On Aug. 1, the world cotton stock was only 10.9 million bales compared to 16.6 million bales the same time last year and 24.9 million bales in 1938.

Spinners' Backlog Registers Increase

For the first time since last March carded cotton sales yarn spinners' backlog of unfilled orders registered an increase in September, the Textile Information Service reports. According to statistics of the Carded Yarn Association covering reports from approximately 1.4 million member spindles, unfilled orders on spinners' books as of Oct. 6 amounted to 10.49 weeks' production and were 6.28 times stocks on hand. This compared with a backlog of Sept. 1 equal to 10.31 weeks' output and 6.01 times the stocks on hand. It was noted that the weekly production rate for the week ended Oct. 6 was slightly higher than in the week ended Sept. 1.

Total yarn in stock on Oct. 6, including yarn made for

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future deliveries against unfilled orders, was equal to 1.669 weeks' production compared with inventories on Sept. 1 equivalent to 1.72 weeks' production. Shipments continued to parallel production while an improvement in sales volume was, of course, accountable for the modest rise in unfilled order backlogs. Production in the week ended Oct. 6 consisted of 29.3 per cent knitting yarn, 58.6 per cent weaving yarn, and 12.1 per cent all others. In the week ended Sept. 1, the production percentages were 29.7, 58.7 and 11.6 respectively.

Grant More Leeway In Use Of Spindles

The National Production Authority Nov. 6 announced that restrictions have been removed on the use of cotton carded yarn spindles to permit manufacturers greater leeway. N.P.A. explained the action was taken because some manufacturers are piling up "excessive inventories of particular types of yarn for which there is currently little demand." N.P.A. amended M-23 which regulates the impact of defense-rated orders on producers of carded yarn. Manufacturers now may use their spindles to turn out any type of carded yarn they choose. Previously, M-23 required that no spindles producing yarn in one classification could be used to turn out yarn in the other two classifications.

Decline In Cotton Broad Woven Output

Production of cotton broad woven fabrics totaled 2,653 million linear yards in the second quarter of 1951, a seven per cent drop below the first quarter output, it is announced by the Bureau of the Census, Department of Commerce. Cotton tire cord and fabric production amounted to 70 million pounds, six per cent more than in the first quarter, while rayon tire cord and fabric production totaled 75 million pounds, four per cent under first quarter production. Production of all groups of fabrics fell below first quarter production except cotton duck and cotton tire cord and fabrics which registered increases of 13 and six per cent, respectively.

Of the total of 2,653 million yards of cotton fabrics produced during the second quarter, ten million yards were produced on woolen and worsted looms. On June 30, 1951, there were 16,524,052 spinning spindles in place and 392,352 looms.

Total yarn consumed in the second quarter was 994,479,000 pounds compared with 1,020,853,000 pounds in the first quarter. Of the second quarter total of yarn consumed 900,226,000 pounds was cotton, 79,671,000 was rayon, and 14,582,000 was all other yarns (including blends and mixtures.)

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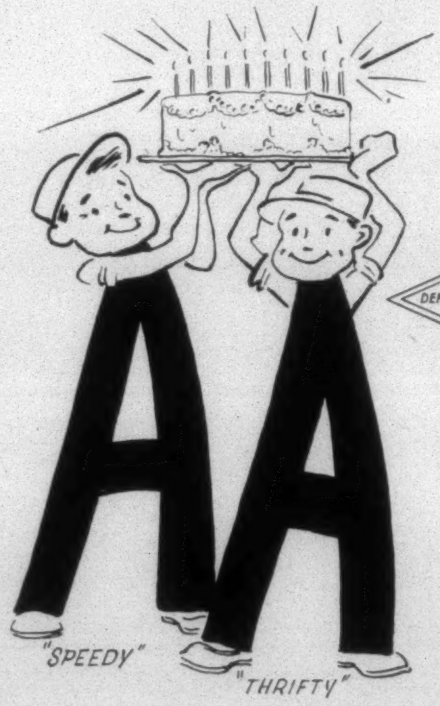

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Before Closing Down

– TEXTILE INDUSTRY HAPPENINGS AS THE MONTH ENDED –

PERSONAL NEWS

The board of directors of Avondale Mills, Sylacauga, Ala., at its annual meeting Nov. 15 announced creation of an executive committee and named Donald Comer *(left)*, formerly chairman of the board, as chairman of the new body. At the same time, Hugh M. Comer *(at right below)*, president and treasurer since 1945, was elected chairman of the board and J. Craig Smith *(at left below)*, formerly executive vice-president, became president and treasurer. B. B. Comer, Jr., was re-elected chairman of the finance committee. The new executive committee is made up of its chairman, the chairman of the board, the chairman of the finance committee, and the president.

John A. Simmons, formerly vice-president and general manager, has been elected president of Lannet (Ala.) Bleachery & Dye Works succeeding J. L. Lanier, who was made chairman of the board. . . . A. O. Benton, former superintendent, was elected a vice-president of the firm. Five new directors elected include John A. Sibley, chairman of the board of Trust Co. of Georgia, Atlanta; George W. Woodruff of Continental Gin Co., Atlanta; Richard G. Conant, president of Wellington Sears Co., New York; William W. Wolbach of Boston, Mass., chairman of the board of West Point (Ga.) Mfg. Co., the parent organization; and George Olsted, Jr., Boston, Mass.

J. Carlisle Farrow, a textile chemistry instructor at Alabama Polytechnic Institute, Auburn, recently was elected president of the newly-organized Eclectic (Ala.) Lions Club.

Roy C. McCall, president and treasurer of Pinnacle Mills, Easley, S. C., recently was elected chairman of the new Pickens County School District.

Ralph C. Russell has been named general sales manager of Hayssen Mfg. Co., Sheboygan, Wis., producer of textile wrapping machines. Mr. Russell was for 14 years associated with E. I. du Pont de Nemours & Co., Inc., and for the past eight years with Oliver Machinery Co., Grand Rapids, Mich.

W. F. Crowder, for the past two years superintendent of Jordan Spinning Co. at Cedar Falls, N. C., has joined B. S. Roy and Son Co. as Southern representative, with headquarters at Charlotte, N. C.

Gordon Matheson, vice-president of Mooresville (N. C.) Mills, has been named to serve as chairman for the 1951 Christmas Seal sale in the southern section of Iredell County, N. C.

J. R. Davison, general manager of Royston (Ga.) Mills, has been elected a vice-president of the firm. Prior to joining Royston in 1946, Mr. Davison was associated with Jefferson (Ga.) Mills.

P. Jennings White has been appointed superintendent of the Greer (S. C.) Plant of the Victor-Monaghan Division of J. P. Stevens & Co., Inc. Mr. White succeeds H. P. Glenn, who recently resigned. Mr. White, who began his textile career in 1935 with Dunean Mills, Greenville, S. C., later worked at Watts Mills, Laurens, S. C., and the Monaghan Plant of Victor-Monaghan in Greenville.

Edward S. Alden, treasurer of Whitin Machine Works, Whitinsville, Mass., has been elected a vice-president of the firm. He continues as treasurer.

Robert C. Jackson, executive vice-president of the American Cotton Manufacturers Institute, recently was awarded a certificate of appreciation by the Army for contributions to the nation while serving overseas with the technical industrial intelligence committee, Joint Chiefs of Staff, during World War II.

Ed Lipscomb of the National Cotton Council, Memphis, Tenn., has been elected president of the Public Relations Society of America to serve during 1952.

Ellis T. Beck has been named Eastern district manager of the Votator Division of the Girdler Corp., Louisville, Ky., succeeding Samuel Welch, who resigned Oct. 31.

Robert L. Voigt, formerly of the nylon division, E. I. du Pont de Nemours & Co., Inc., has joined Dixie Mercerizing Co., Chattanooga, Tenn. At present his duties will be to develop and service sales of synthetic yarns. Mr. Voigt joined Du Pont in 1941 and, since 1946 has been associated with the nylon division, sales development section. He was closely connected with the development of spinning processes and end-uses for nylon staple. His last two years with the nylon division were devoted primarily to process and product development of Du Pont's new polyester fiber Dacron.

C. H. Campbell *(left, above)*, vice-president and sales manager of Sonoco Products Co., Hartsville, S. C., has been succeeded as president of the South Carolina State Chamber of Commerce by Robert E. Henry *(right)*, prominent textile executive of Greenville, S. C. Mr. Henry was elected at the annual convention of the group Nov. 16 in Greenville.

Reginald Garnsey, manager of the Carrickfergus Plant of Courtaulds, Ltd., London, England, has been appointed works manager of the rayon staple plant being constructed at Mobile, Ala., by Courtaulds (Ala.), Inc. . . . A. A. MacDonald, rayon staple sales manager for Courtaulds in the United Kingdom, has been named sales manager for the American plant.

Fred A. Waynant, chief industrial engineer for American Enka Corp., Enka, N. C., was elected president of the Asheville (N. C.) Chapter of the Society for the Advancement of Management at the organizational meeting of the chapter Nov. 15 in Asheville.

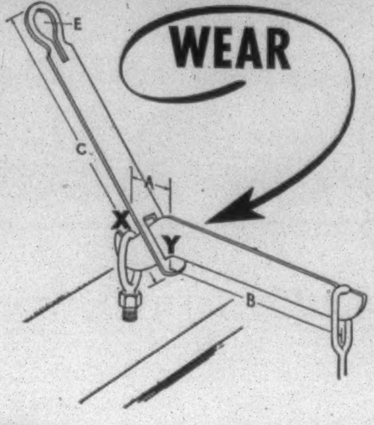
Joseph P. Holt, president of Aberfoyle Mfg. Co., Philadelphia, Pa., recently was elected president and treasurer of the Durene Association of America. Donald R. Jonas, vice-president of Spinners Processing Co., Spindale, N. C., was re-elected vice-president of the association and A. C. Layton Newsom was re-elected executive secretary.

Edgar E. Ball of Charlotte, N. C., has joined the organization of Watson & Desmond to head the firm's chemical department, which specializes in the products of Chemicolloid Laboratories and Mona Industries. Mr. Ball attended North Carolina State College, where he majored in chemistry and dyeing. Watson & Desmond has offices at Charlotte, Greensboro, N. C., and Greenville, S. C.

Clarence G. Higginbotham, assistant treasurer of the HDV division of Callaway Mills Co., LaGrange, Ga., recently completed 25 years with the firm. He was presented flowers, a 25-year emblem and an engraved watch.

Edward O'Connell, former personnel official of Mt. Hope Finishing Co. at North Dighton, Mass., has been named assistant treasurer of the new Creedmoor Co., Inc.,

It pays to know the whereabouts of WEAR



WHAT you don't know CAN hurt you! It can be extremely painful. Excessive wear of stirrups and levers in your drafting assemblies, especially when *not* noticed, prevents GOOD SPINNING.

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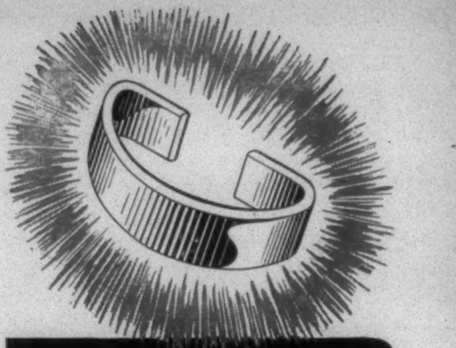
P.O. Box 745 Columbus, Ga.

nylon and rayon finishing plant now being set up at Camp Butner, near Durham, N. C. The new firm will begin operations about Jan. 1 in ten leased buildings, with approximately 225 employees.

OBITUARIES

James B. Crowder, 65, overseer of spinning at the Elm City Plant of Callaway Mills Co., LaGrange, Ga., died Nov. 3. He had been associated with Callaway since 1920. His wife and a son survive.

Benjamin B. Gossett, 67, of Charlotte, N. C., for many years one of the nation's outstanding textile manufacturers, died suddenly Nov. 13 of a heart attack. Mr. Gossett disposed of his major interests in the textile industry in 1946 when the Gossett and Chadwick-Hoskins mill groups were sold to Textron, Inc., but he continued his association with the trade as a member of the board of directors of Dan River Mills, Danville, Va. A graduate of the U. S. Naval Academy, he served as a lieutenant in the Marine Corps for two years before entering the textile business in 1907 with his father at Williamston (S. C.) Mills. His textile interests over the years are illustrated in his various associations as follows: assistant treasurer, Williamston Mills, 1908-1928; vice-president and treasurer, Brogan Mills (now Appleton Mills) Anderson, S. C., 1909-1920; president and treasurer, Riverside Mfg. Co., Anderson, S. C., 1913-1928; Toxaway Mills, Anderson, S. C., 1913-1928; president, Panola Cotton Mills, Greenwood, S. C., 1920-1921; vice-president, Citizens National Bank, Anderson, S. C., 1917-1922; president, Cohannet Mills, Fingerville, S. C., 1922-1924; president and treasurer of Chadwick-Hoskins Co., Charlotte, N. C., 1921 to 1946; president, Martinsville (Va.) Cotton Mills Co., Inc., 1921-1946; vice-president, American Trust Co., Charlotte, N. C., 1924-1930; director, Republic Cotton Mills, Great Falls, S. C., 1926-1933; director, Judson Mills, Greenville, S. C., 1915-1925; director, Southern Worsted Corp., Greenville, S. C., 1922-1926; vice-president and treasurer of Gossett Mills, Anderson, S. C., and president from 1936 to 1946; president and treasurer of Calhoun Mills, Calhoun Falls, S. C., from 1936 to 1946, and president of the Hoskins Corp., New York City, during the '30s. He was one of the founders of the Cotton-Textile Institute and its vice-president from 1931 to 1933. He also was former president of the American Cotton Manufacturers Association, serving in 1932-33, and was an ex-officio member of the board of directors of the American Cotton Manufacturers Institute, the association's successor organization. About a year ago Mr. Gossett contributed $10,000 to North Carolina State College for a series of lectures at its school of textiles. These lectures are known as the B. B. Gossett Lecture Series and feature outstanding authorities from all branches of the textile industry. Shortly before his death, on Nov. 3, he was awarded the honorary Doctor of Textile Industries degree by Clemson (S. C.) College at ceremonies marking "Textile Day at



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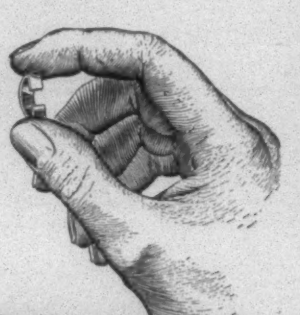

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JOHN H. O'NEILL, BOX 720, ATLANTA, GA.
JAMES H. CARVER, BOX 22, RUTHERFORDTON, N. C.
CRAWFORD RHYMER, BOX 2261, GREENVILLE, S. C.

Clemson." He also held the honorary degree of Doctor of Science from N. C. State College and the LL.D. degree from Presbyterian College, Clinton, S C. Mr. Gossett is survived by his wife, two sons and a daughter.

Harry W. Johnston, 61, foreman of repairs for Ashworth Bros., Inc., Greenville, S. C., died Oct. 16. Surviving are his wife, three sisters and five brothers.

Cornelius L. Hamilton, 61, president of Crown Cotton Mills at Dalton, Ga., died at a Dalton hospital Nov. 13 following a heart attack. Mr. Hamilton was promoted from vice-president to president of Crown Cotton Mills following the death of a brother, George Hamilton, in October, 1950. Mr. Hamilton's family established the mills in 1884 as Dalton's first industrial plant. Surviving are his wife, a son, two daughters and two sisters.

Walter E. Morton, 70, retired superintendent of Central Mills at York, S. C., died Nov. 10 after a short illness. He became associated with Central Mills in 1918 as assistant superintendent and was made superintendent in 1925. He retired July 1, 1949. He is survived by his wife, five sons and five daughters.

Homer M. Pace, 60, a vice-president of South Carolina Electric & Gas Co. and an outstanding influence in the industrial development of South Carolina and the South, died Nov. 15 in Charleston, S. C. His wife and three children survive.

Cecil W. Wainwright, 74, retired textile engineer who for many years was associated with a number of Southern textile plants, died Nov. 5. Mr. Wainwright had made his home in Arlington, Va., since his retirement in 1934, at which time he was located in Greenville, S. C. He was a son of the late T. L. Wainwright, who for over 50 years operated the former Stonewall (Miss.) Cotton Mills, now a division of Erwin Mills, Inc. Mr. Wainwright is survived by his wife, two sons, a brother and a sister.

MILL NEWS

MONROE, GA.—Monroe Cotton Mill is engaged in expanding its building and machinery by about 30 per cent in a $650,000 improvement and expansion program, according to L. C. Bradford, mill executive. The program calls for the mill's expenditure of $150,000 more before completion.

DYERSBURG, TENN. — Dyersburg Cotton Products, Inc., recently offered for sale to employees the 96 company-owned homes in the mill village.

MONROE, GA. — Expansion of Walton Cotton Mill at Monroe by adding more spinning frames has been completed, according to Henry M. Tichenor, plant executive.

ROCK HILL, S. C.—The Celriver Plant of Celanese Corp. of America was closed down for a week, beginning Nov. 25, to permit the tie-in of new service equipment.

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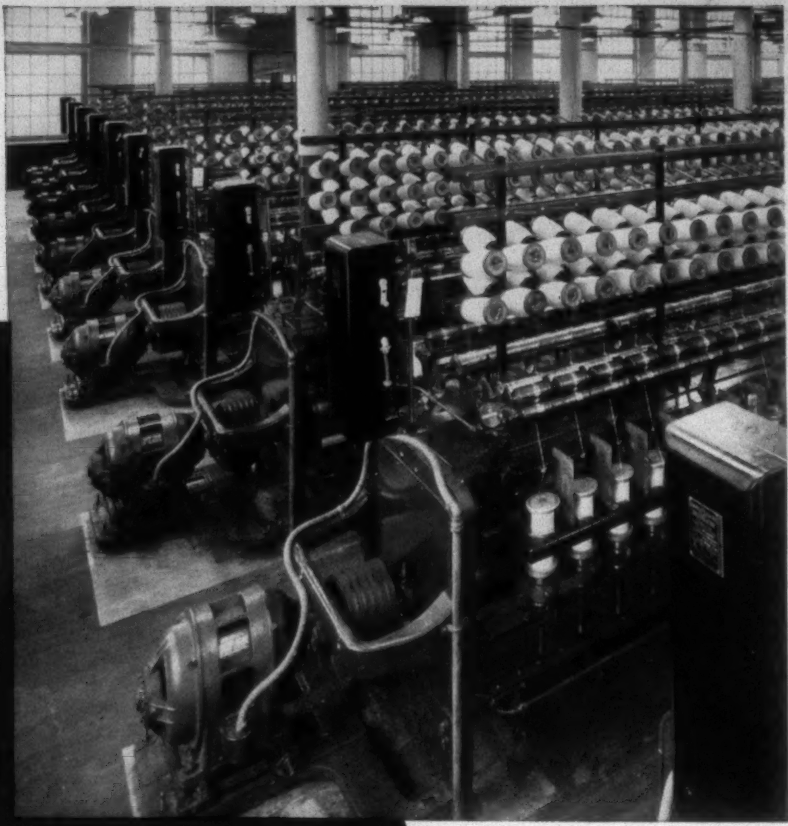

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